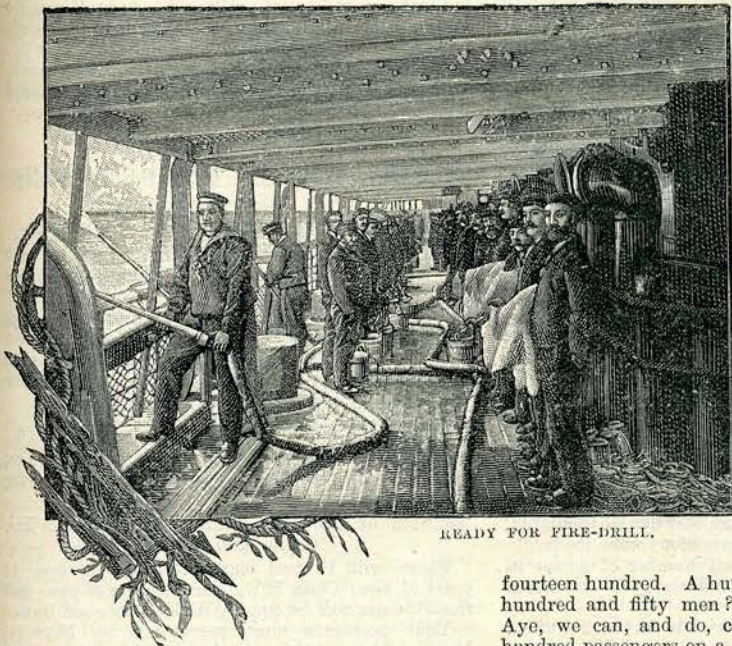


MONARCHS OF THE SEA.

Chats About Some Great Ships.

TWO TWIN GIANTS.

"YES; that's the *Campania*, sister-ship to the *Lucania*, which you'll see presently. And a splendid vessel she is, ain't she?" said my guide.



READY FOR FIRE-DRILL.

"She is scarcely so large as I fancied her to be," I ventured to remark.

"Ah! that's because she's so finely-proportioned, and may be you're not accustomed to compare vessels. Why, you remember the *Great Eastern*? Well, she's only sixty-two feet shorter than her! So, you see, the *Campania* and her twin-ship are the largest vessels in the world! They are 620 feet long—the *Great Eastern* was 682. Now, excuse me, how wide do you think her funnels are? No; not fifteen, but nineteen, feet in diameter—as wide as a good-sized room, and as high as the Eddystone out of the water."

With these somewhat surprising comparisons ringing in my ears I was permitted to go on board, and to commence my inspection of the monarch—a most graceful monarch, too—which was launched in 1892. The *Lucania* was despatched in 1893. The *Campania* is thus the elder, and was the first to leave home, as represented by the Fairfield Company's yard on the Clyde. If she was the first, she has been outstripped by her sister, the *Lucania*, whose average speed, in crossing from New York to Queenstown, has been twenty-five miles an hour—six hundred miles a day—though the *Campania* has not been far behind her. This means that, under favourable circumstances, either ship can travel nearly twenty-seven statute miles an hour—as fast as many railway trains.

"That is so," remarked my informant. "The ship is just a picture! Look at her lines! Isn't she graceful? But you cannot appreciate her till you know her. She's not so different from other liners outwardly at first sight, but when you've been on board, and all over her, I think you'll say she's about unique."

"Just come aboard and look around you. St. Paul's Cathedral doesn't appear so very big until you begin to compare details. Now then, climb up and have a walk."

A walk, and a long walk too, in this floating city, resting so gracefully upon the water, so steady, so lifeless—apparently—a sleeping giant amid ships. One feels inclined to exclaim, with Dominie Sampson, "Prodigious!" as one stands upon the promenade deck of the *Campania*.

Built in accordance with Admiralty demands for armed cruisers, the *Campania* is specially strong in construction, steel-plated beams and coal-bunkers in the sides to protect the engines and boilers. "She has eighteen water-tight bulk-heads," says our informant, "and the doors in them can be closed from the deck by machinery, so that nothing is left to people below to tamper with."

"That's the 'shade deck' where the lifeboats are. Here's the smoking-room. Not much like an ordinary smoking-room, and less like a cabin, you say. That's true. It's just an old-fashioned hall in a country house. Baronial! Isn't it? That's it, and oak furniture to match. We don't go in for display; all the grand gilding and such like is done away with. We aim at comfort and ease for the passengers, at fresh air, cheerful rooms—not 'cabins'—but real bedrooms, you see, as near as possible; and, if you're a grandee, you can have a suite of apartments to yourself."

"How many passengers do we carry? How many can we carry, you mean, perhaps? Including steerage passengers, we can do well with

fourteen hundred. A hundred and fifty crew! One hundred and fifty men? Four hundred men, sir! Aye, we can, and do, carry no less than fourteen hundred passengers on a trip, besides the crew, and might carry more. That makes at least eighteen hundred souls, all under the command and in the care of one man—the captain! Marvellous! Yes, you're right! It is astonishing to those who remember the old *Persia* and the *Scotia*—'side-wheels'—and the *China*, the first screw Cunarder.

"Why, even in the days of the *Gallia* and the *Servia* we didn't think of the *Campania*. The *Majestic* and *Teutonic* made us 'sit up' and beat the record. We started with the *Britannia* in 1840,

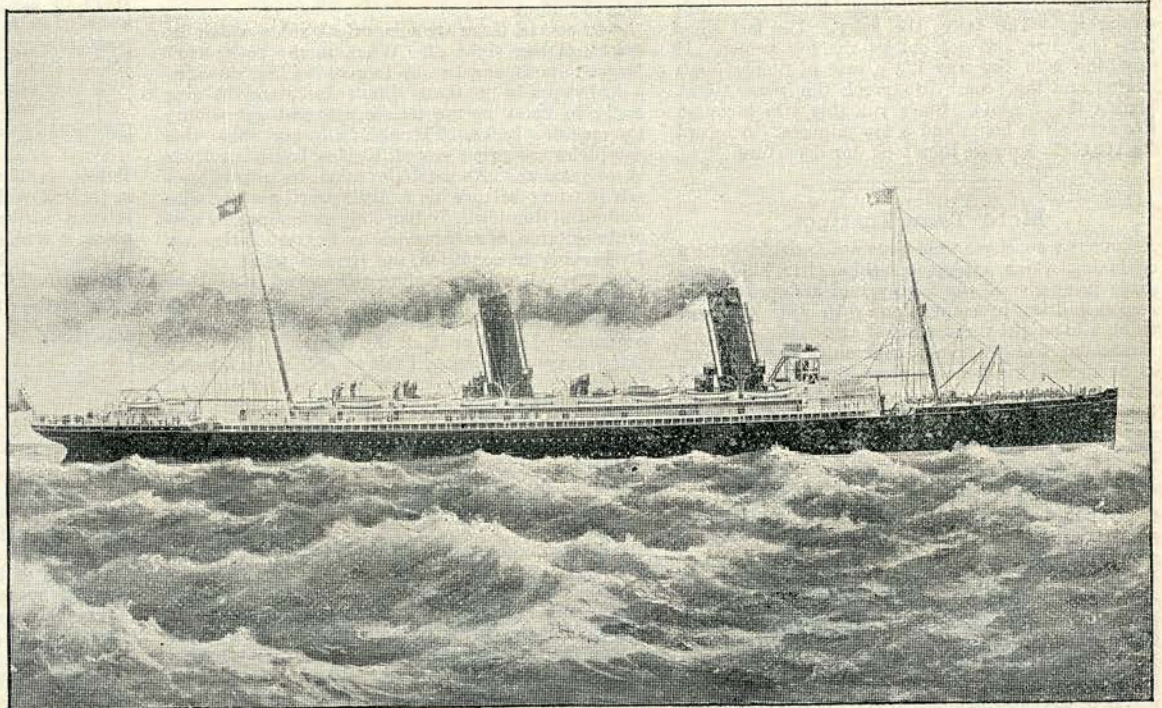
and thirty persons. An apartment one hundred feet long, panelled in white and gold, with Spanish mahogany, lighted by electric light, and rising in a fine domed ceiling. The drawing-room is amidships, and encircles the "dome" already referred to. It is lined with satin-wood and cedar, and charmingly furnished, contains an organ and piano; and if one wishes for privacy there are nooks to which the contemplative may retire alone, or with a chosen friend. The library is also a delightful surprise to people accustomed only to the coasting steamer or the early "liners."

It was almost impossible to believe oneself on board a steamer, but the fact was pressed home by the appearance of a gentleman who was going to show me the engines, which have already created some sensation and performed stupendous tasks. There is no need to go into details here. The necessary technicalities might not be understood, but, as nearly all lads like engines, I will try to explain them as they appear in the Giant Twins.

The engines for modern vessels are triple expansion—the steam is used three times—and each vessel (*Campania* and *Lucania*) has two sets, in separate compartments, with a bulkhead, or partition, between, a door giving access between the engine-rooms. In later times three cylinders have been used for triple-expansion, but when the *Campania* was being built it was discovered that the size of cylinder required was too large for the factory to turn out with the perfect accuracy which is necessary. So five cylinders were made. The high and low pressure were divided, and a low placed on a high pressure, the "intermediate" cylinder being in the middle. The pistons are upon the same rod in each pair.

"How many boilers? There are twelve 'double-ended,' so we can stoke at both ends. They are seventeen feet long, eighteen in diameter, and heated by ninety-six furnaces—four at each end. There are two sets of boilers, you see, and each one has a funnel as wide as an ordinary railway tunnel! You could run a train, or a drag with four horses, through the funnels. We have other boilers and machines for electric-lighting, and pumping, reversing the engines, and many other purposes. Complicated? Not a bit! Looks so, perhaps; but you always put your hand on the proper gear, at the proper time. All is arranged.

"Thirty thousand horse-power is our sum, which is far the greatest yet employed. The *Paris* is the next to us, and she's not near us with 18,500. Why,



THE "CAMPANIA."

and I don't myself think that we've done our best yet.

"But you want to see the engines, and if you'll wait a minute I think I can manage it for you. One of the engineers will explain them. The *Lucania* is similar."

While my informant was away I could only admire the dining-room, which can seat four hundred

the *Great Eastern* had barely one quarter of our power. She had only 7,650. The propeller shafts are in the hull itself, and we have twin-screws. We can run twenty-seven miles an hour, and have one hundred and ninety-five men to work the engines, etc. The main, the upper, and promenade decks are occupied by the first-class passengers, of whom, 'at a pinch,' six hundred can be accommodated. From

the look-out station, called the 'crow's-nest,' upon the foremast, to the sea-level is a fall of one hundred feet. The extent of sea-board which is thus commanded is fifteen miles in radius. We can see over the fog sometimes. You can scarcely imagine an Atlantic roller invading such a vessel, and certainly not drenching the officers on the bridge, who are there sixty feet above the sea! But the waves leap high in the Atlantic."

We stand once more on deck, and endeavour to grasp the full significance of the things we have heard and seen. We picture this luxurious, well-appointed steamship dashing through the water at twenty-seven miles an hour, her engines working with the power of 30,000 horses, cutting the waves as easily as a knife cuts cheese. We picture her lighted by electricity, full of life and animation, a floating town, with nearly two thousand inhabitants whisked over three thousand miles of ocean in six very short days, with all the comforts of home. At length we put a question tentatively, modestly.

"And is it safe, do you think?"

"Safe as anything human can be. I mean for a ship. We have no 'block-system,' and no signals, as ashore; but unless there's a thick fog we don't mind weather. In the present day, unless we sustain a very severe collision—which is unlikely—we are safe. We clear icebergs and steer our own line across.

"But accidents have happened? Oh, yes, of course. Once a ship was steaming along merrily, close home. We could see the Irish coast, but before we could see Queenstown the fog came down and blotted everything out. So we crept along up the Channel, sounding the lead and the fog-horn, to Liverpool. Never had a look at Queenstown. The *City of Rome* ran up against the Fastnet Rock once, and many a fine liner has gone between it and Liverpool. It's the fog!"

"Ah, yes! Fire? We provide against that by drilling the crew, so that every man knows his place in an emergency; some with the buckets, others with the hose, others with blankets or at the pumps. In a couple of minutes every man is at his post, and it's a queer fire that we can't douse. Boat-drill and pump-drill are also practised regularly. (One of our illustrations shows the practice of the fire-drill referred to.)

"Icebergs? Well, not us. The *Arizona* crashed into a 'berg and smashed her bows up. She didn't sink, however. But there are very few accidents. Now and then we may have a shave, but no one is the worse, and you have to face as much risk in London—more, indeed—than on board an ocean steamship. The faster the safer. The fast ships take less time, and get out of the fog sooner. If anything is in the way it's a case of Stephenson's engine and the 'coo.' So much the worse for it. Here's the *Lucania*. She's run this trip home in five days seven hours and a few minutes. A record for 1894!" And we then took our departure.

More Than Instinct.

A COUNTRY gentleman not long ago brought home a collie dog, which, after the fashion of its kind, soon made itself one of the family, and assumed special responsibilities in connection with the youngest child, a little girl three years of age.

One day the gentleman, returning from a drive, as he neared his house noticed the dog in a field separated from the road by a stone wall. From behind this wall the collie would spring up, bark, and then jump down again, constantly repeating the performance.

The man left his horse and went to the spot. There he found his little girl seated on a stone, with the collie keeping guard beside her. The intelligent animal wagged his tail and barked his delight at seeing his master.

In the light snow the path taken by the child and dog could be plainly seen, and as the father traced it back he saw where the little girl had walked several times around an open well in the field. Close to the brink were prints of the baby's shoes, but still closer, on the very edge of the well, were the foot-marks of the collie, which had evidently kept between her and the well.

The faithful creature seemed to know that upon him lay the responsibility of keeping the child from a sure and terrible death.

PROFESSOR (to class in surgery): "The right leg of the patient, as you see, is shorter than the left, in consequence of which he limps. Now, what would you do in a case of this kind?"

Bright Student: "Limp, too."

WHAT A RUGBY FORWARD SHOULD BE AND DO.

A Well-known International Gives Advice.



MR. R. P. WILSON.

is resident medical officer there. When I had offered a few remarks concerning the cosy den he inhabited, the following queries and confessions were made.

"Bearing in mind the great number of games in vogue, Mr. Wilson, what induced you to choose Rugby football?"

"I had a few intimate friends in the Parkfield Club, so I naturally drifted to it; but I did not stay long with them."

"Could a lad select any better pastime?"

"No. A strong, or even an ordinary sort of boy, couldn't find a better recreation. It hardens, invigorates, and makes a man of a chap. If he be a bit ambitious and wish to attain honours in this branch of sport, the following precepts should be observed. Watch the ball wherever it goes. If you can't exactly see it, know its whereabouts, whether in the pack or in the open. This has been a fixed plan of mine, and undoubtedly a good rule for all lads to follow.

"Of course, there are subservient rules which he must not lose sight of. When in the pack, don't forget to push, and be sure to give the first shove, as a deal depends on that. Don't *hack*, and be ever ready to break up the scrimmage, and get among the opposing backs. Through following up in this way, tries are often scored, besides bothering their three-quarters. He must also take care to keep himself in trim; balance his football exertions by a wise amount of dumbbell, Indian club, swimming, or any other suitable exercise which is not too fatiguing. By keeping in condition, the hardest game can be gone through without feeling any worse.

"A few seasons ago, I felt equal to do anything, and in the Irish match I got over the line on four occasions. I went at it all the time, but, thanks to being in good condition, I felt as well as possible at the finish. Besides these few hints, cultivate a good temper. Be willing to pass, and ready to receive a pass. And if one plays with persons who cannot truthfully be termed gentlemen, treat them the same as anyone else and the club will gain by it."

"What forwards do you class first?"

"Scotland's; though the Tykes run them very close."

"How should a tackle be made to prevent serious injuries?"

"Round the hips. If you tackle low, there is great danger of getting your head badly used. If you go for the neck, you get fooled. A genuine grip of the hips is best. And face your man with a determination to hold him; don't be half-hearted."

"Talking of injuries brings me to inquiring which code is the more dangerous?"

"Oh, both can be made equally risky. Play either game as it should be played, and no grave consequences need be feared. But he's a poor sort of fellow who doesn't relish a spice of danger. I like it on that account. Myself, I have been very free from accidents. You find little harm done in class matches—international and county; it's the local engagement where the damage is done. Some people, I must say, forget that there are other pleasure pursuits much more dangerous than football."

I'VE recently been to that beautiful structure, the Liverpool Royal Infirmary—no, thank you, not to have any of my limbs attended to, but to get some valuable opinions of forward work from Mr. R. P. Wilson, the International, Lancashire County, and Liverpool Old Boys' representative, who

"As a forward, do you hold that four three-quarters has improved the game?"

"I do. The play is more open, more scientific, and better from a spectator's point of view."

"Will you tell me what you think will be the outcome of the recent discussion on Rugby professionalism?"

"I think open professionalism will come about, but I wouldn't like to play for a team that recompensed some of their members in that way. Let a lad make a good social position for himself, and not allow football to interfere with that or his studies."

"Have you any other hobby besides football?"

"Some months ago I made a start at lawn-tennis, and enjoy it very much, though at one time I called it an old woman's game." NEUTRAL.

THREE SIMPLE COMPETITIONS.

Twenty-Four Prizes Want Winning!

FROM the numerous letters that I have recently had from all parts, there can be no doubt that the two serial stories, "Through Thick and Thin," and "Tracked by Thugs," now running through "CHUMS" are a huge success. We are glad to know it, and, in order to confirm our belief as to the kind of continued story most popular among our readers, the following offer is made.

Eight Illustrated Volumes of Adventure

will be awarded to the senders of the Eight best Postcards, on which is written a reply to the question:—

"WHICH OF THE TWO 'CHUMS' SERIALS DO YOU PREFER, AND WHY?"

There will be two classes:—Class I., over 15 years of age; Class II., under 15 years of age; and the Volumes will be equally divided between them.

Your postcards must reach me by MONDAY, MARCH 11TH, 1895—a date which gives both Weekly and Monthly Readers equal opportunities to compete.

Six Solid Silver Watch-Chains

are offered for the Six best Descriptions, written on the back of a postcard—with your name, address, and class—of A MOST EXCITING ADVENTURE. This may be real or imaginary; but it must be original, concise, thrilling, and probable. There will be two classes:—Class I., over 15 years of age; Class II., under 15 years of age; and Two WATCH-CHAINS will be awarded in each class to WEEKLY READERS, whose postcards must reach me by MONDAY, MARCH 4TH, 1895. PART READERS—who must send a declaration that they are monthly subscribers—are offered ONE CHAIN in each class, and they must forward their postcards by MONDAY, MARCH 18TH, 1895.

THERE is absolutely no restriction as to subject in the following Competition. You are to send anything you like, on a postcard—a joke, a drawing, a poem, a riddle, or whatever you think best. The classes will be the same as in the "Exciting Adventure" Competition, and

Ten Solid Silver Pencil-Cases

will be awarded to those who forward to me what I consider the TEN best, smartest, and most original bits of work on postcards.

THREE PENCIL-CASES will be given in each class to WEEKLY READERS, for whom the closing day is

MONDAY NEXT, FEBRUARY 25TH, 1895.

PART READERS are offered TWO PENCIL-CASES in each class, and their postcards—on which they must declare that they are monthly subscribers—must reach me by MONDAY, MARCH 18TH, 1895.

In each of the foregoing Competitions, if I am justified by results, I shall add Consolation Prizes in the form of BRONZE MEDALS and "CHUMS" CERTIFICATES OF MERIT.

In all the Competitions my decision as to the winners must be regarded as final; and your postcards must be addressed to the "Prize Editor, 'CHUMS,' La Belle Sauvage, Ludgate Hill, London, E.C."

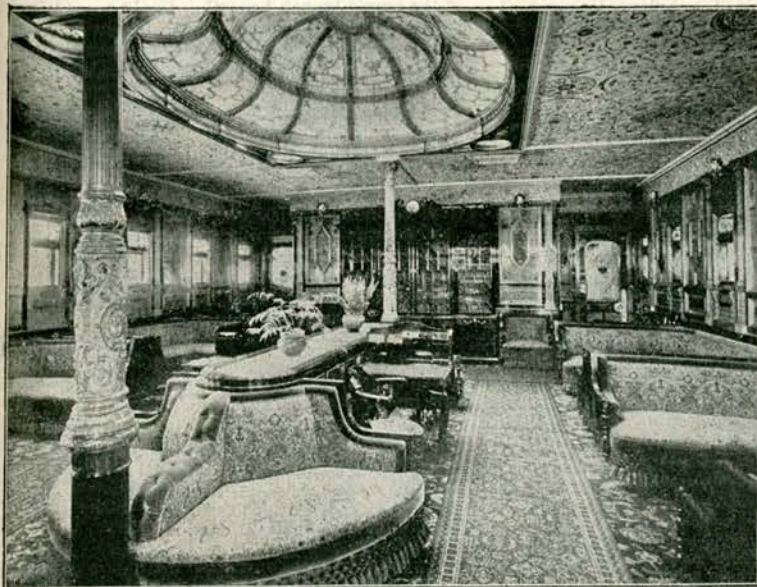
The results of the "Favourite Hero" and the "Story" Competitions—announced in the December 20th, 1894, number of "CHUMS"—will be printed next week. The "Funny Animal in Five Strokes" as well as the "Alliterative Sentence" Competitions are being dealt with as quickly as possible. PRIZE EDITOR.

MONARCHS OF THE SEA.

Chats About Some Great Ships.

THE "SCOT" AND THE "NORMAN."

AS it will be impossible to describe all the fleet of steamers owned by the Union Steamship Company, we select the two ships above-named,



THE LIBRARY OF THE "NORMAN."

because they embody the most typical features of the service. The *Scot* has already become famous. The *Norman* is on the road to fame, being the latest addition to the fleet.

Will the reader accompany us to Southampton Docks, whence we are, by the courtesy of the Union Company, carried out into "the Water," where the *Scot* is lying? It makes little difference which vessel we inspect, for, if some are larger than others, the accommodation and the catering are alike excellent. Be it *Moor* or *Tartar*, *Trojan* or *Athenian*, *Goth* or *Guelph*, we shall be equally comfortable. But here we are!

"Yes, sir, that's the *Scot*"—and a fine-looking ship she is. Our personal conductor informs us that she is 6,850 tons, and the *Norman* 7,392. "Do we go to the Cape? Certainly, and to many other places. Why, we have four distinct services. Yes, there's the fortnightly mail to the Cape and Natal. This is what we may call the main-line from Southampton to Madeira, Table Bay, and Natal. Nineteen days allowed to the Cape, but, bless you! we do it in less than that. Then we have the Continental and Intermediate Service from Antwerp, Rotterdam, and Hamburg, *via* Southampton to the Cape and other ports; the Intercolonial Service up the African coast, and the east coast up to Zanzibar; also in the reverse direction, of course.

"Now you want to see the ship? Very well. Here you are! Here's the promenade deck, which is 257 feet long, and here you may dance, or play any games you please. How do we pass the time? I'll tell you presently. We have a good time, you may depend upon that; and the trip in the *Scot* can be run in fourteen days! Excuse me, one moment."

As my conductor left me, I strolled on, and through the saloons and cabins. The reader can picture fine lofty rooms, airy, light, and luxuriously furnished. The old ideas of cabins which we used to have, and the stuffy bed-places, have all given place to furnished apartments splendidly upholstered, double-pile carpets, oaken panelling, parquet flooring, *portières*, arm-chairs, a well-assorted library, and fine smoking-rooms.

In the saloon are a piano and an organ; while cool baths are found in proper places on the decks. The old "bunk" is replaced by the elegant brass bedstead, bright and cleanly, rich curtains, soft restful sofas and couches, electric light above each berth, and plenty of room to move about, run races, or play games.

I sat down in the library and wondered. Other

visitors had gone on deck; and, glancing round upon the luxurious furniture, fittings, stained glass, and the general comfort in the shape of light refreshment on the centre table, I wondered and pondered. Was I really on board ship lying out in Southampton Water? No rolling, no pitching at her anchor, though the wind was blowing, and the waves were swishing alongside. Peace and rest indeed!

"I say, aren't you coming on deck? You'll lose all the scenery! Come along!"

"Scenery! What scenery?" I gasped, hardly crediting my ears, as I walked up the wide staircase. "Why, we're steaming out!"

"Of course—we're getting outside the island. Look!" I looked. A stiff breeze tending to increase a lumping sea, in which vessels dipped deep and rolled, a sky, blue in places, but shut in by cloud-masses, the shadows chasing each other across the Wight. Yes! We were at sea, practically! steaming fast, and yet I had never even discovered that we were under way! Wonderful! Here we were, as comfortable as in a yacht in smooth water, cutting the rising waves easily, and when the luncheon

bugle announced the meal, no one had any qualms about descending to the first saloon, in which 190 people can be comfortably seated, and over which a capital band—the ship's band—plays during dinner.

"I told you I would give you an idea how we pass our time afloat," said my friend. "Most people who have not ever made an ocean voyage, dread it because of sickness or *emmi*. 'Nothing to do, you know!' they say, and all that sort of thing.

'Order of the Bath' has been cancelled, and some one else's 'turn' has come. Then dress and breakfast—which consists of? well, everything! Of course, I am not thinking of the tea or coffee, etc., sent into the cabins at six every morning. I mean the saloon breakfast at half-past eight. The dressing bugle goes at eight, when the children breakfast. Second-class, same time. Steerage, same hours, mostly, as the children's meals.

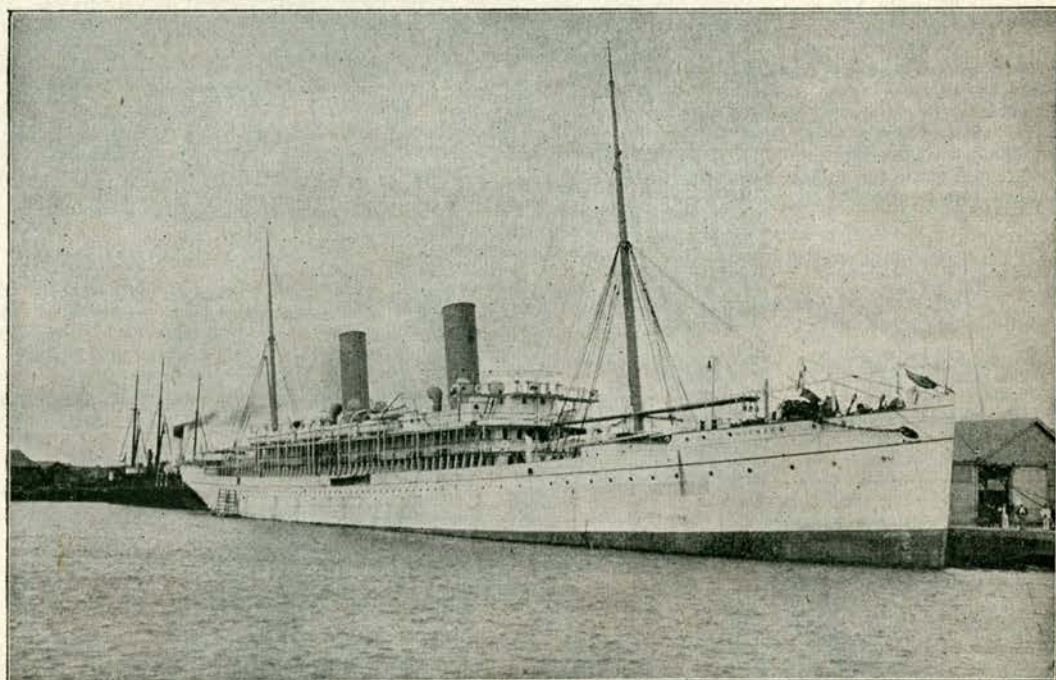
"The bill of fare? Here you are. Porridge, fish, chops, omelets, bacon, curries, fruit, tea, coffee, etc., etc. Other classes in proportion; all abundant and varied: meat, porridge, eggs, bloaters, jams, etc. After breakfast, say 9.30, you begin to 'spend the day'!

"The amusements vary in different ships. Sometimes we have a set of cricketers on board; then deck cricket is played with a rope ball, and you must run when you hit. The fun consists in throwing in, which you are sometimes 'put out' by, as you receive a decided reminder if the ball hits you! It comes round fairly sharp, but it is all fun, and the game is always popular—and hot! It is played on matting, laid on the deck, generally after lunch.

"Sometimes an 'amusement committee' is organised, and they fix the dates of the 'sports.' Perhaps a fancy ball is arranged; or there are dances, concerts, athletic sports, tournaments of sorts, and scimmages. The dances and concerts constitute the evening's amusements. Between breakfast and lunch (the latter at 1.0 or 1.30 p.m.), the passengers are usually quiet; play quoits or tennis under cover, read or chat, or even sleep. Then exercise until half-past six, dinner—a very good one—dance, sing, act charades or a farce, until saloon lights are turned out at 10.30. The smokers have half an hour longer, and then 'cabin-lights out'! There you have the idea."

I certainly had the idea, and again looked about me, thinking of the cost of running the *Scot* out and home, which is estimated at £17,500! Nearly eighteen thousand pounds has at times to be expended by the company ere they can receive anything for the care and accommodation so lavishly bestowed by them and their officers. The vessel, driven by the great twin screws, set and kept at work by two sets of triple expansion engines, running more than twenty-two miles an hour, and fed by thirty-six furnaces, distances every other Cape liner of her day.

There is another feature of the Union programme.



THE "NORMAN."

"Now, independently of the never-failing beauty or grandeur of the ocean, the sun-rise, the sun-set, the storm, the moonlight—there are books and music, pleasant fellow-passengers, excellent food, and a complete holiday. Amusement? Plenty! Let me give you an idea of a day on board one of our boats on the voyage. Just an idea!

"First thing, say, bath! The steward has your name down for a certain hour, and out you must come! If you don't turn out sharp, you'll find your

This is the special train which leaves Waterloo station, London, for Southampton, on sailing days, and runs into the docks. By one of these "specials" we proceed to visit the *Norman*, which started on her first trip to the Cape on the 10th of November, 1891.

This ship, the largest of the Union Fleet, is 491 feet long between perpendiculars, 53 feet wide, and 37 feet 6 inches deep. She is built of steel, has twin screws, and engines which develop a speed of 17½ knots (or twenty miles) an hour. She is a

handsome vessel, painted white, her fawn coloured funnels towering over the spacious decks, two of which are covered in and suitable for promenading. The deck houses contain the dining-room amid ships, and the accommodation is superior, if possible, to that of the *Scot*.

The main saloon on the upper deck is a splendid apartment, panelled in oak and relieved in gold.

Overhead is a dome of stained glass, representing art, letters, commerce, manufactures, etc. The library and drawing-room, fitted with satin-wood, is 36 by 24 feet and 10 feet high. No beams are visible in the ceiling, and the appearance is that of a luxurious room in a hotel. The furniture is Chippendale mahogany, inlaid, and the seats are electric blue texture. The writing-tables, easy chairs, book-cases, etc., are most tasteful. The temperature can be lowered in hot climates by an ingenious arrangement in connection with the refrigerating machinery, so any temperature down to zero may be obtained.

The ship can carry 400 passengers in comfort, and the second-class is hardly inferior to the first. The "steerage" passengers are accommodated forward, and the arrangements are most liberal and comfortable in all respects, as we can testify from personal inspection.

"Come and see this electric cigar-lighter," said my companion; "this is new. You see, you have only to take up the flexible tube, and you find the electricity flowing in the grille within it. This is an absolutely new feature!"

In fact, the *Norman* marks an epoch in the ship-building of the Cape steamers. The fittings are splendid; the ship is almost perfectly steady under steam; no vibration of the engines, and there is no audible noise. She can use a few sails (trysails), foresail, and jib, but she depends chiefly upon her twin screws and powerful machinery. Added to these perfections are the courtesy and kindness of the captain, his officers, and servants, common to all the ships alike. So we have good reason to rank the *Norman* first amongst the monarchs of the Eastern Atlantic Ocean, and to wish her prosperity.

In the Far East.

THE brightest, best-tempered, and most polite people in the world are the Japanese. They absolutely do not know what it is to quarrel, and it is said that if you throw a stone at a dog or cat in Japan, the animal stands and stares at you in amazement—it actually doesn't know what cruelty means.

The Japs are a jolly people, and fond of a joke, and they are generous and trustful to a marked degree. They also have a strong sense of pride, and visitors relate a peculiar instance of this trait.

If a traveller is annoyed by being followed by a crowd—which, however, is always quiet and respectful—he can cause it to melt away like snowflakes on a hot stove by simply halting and holding out a coin. The Japs feel hurt at being taken for mendicants.

Fancy what the result would be if a visitor adopted this expedient in the cities of Europe! He would be almost torn to pieces by the crowd trying to get the coin.

"I HEARD a queer story about Snowdon to-day."

"What was that?"

"Two lads went out for a walk on that hill; they went up higher and higher, and—never came back again."

"Dear me! What became of the unhappy pair?"

"They went down on the other side."

Puzzling.

THE following amusing incident occurred a little time ago in a railway carriage. An old gentleman and his son, evidently not frequent travellers, occupied opposite corners of the carriage, the former sitting with his back to the engine.

At a big junction the engine ran direct into the station, and another engine was attached to the hinder end.

When the train left the station a little later the old gentleman was, of course, sitting facing the engine, and his face at once assumed a studious look, which attracted the attention of the son, who forthwith asked—

"Father, what are you thinking of so seriously?"

The old man replied—

"I am fairly puzzled. When the train entered the station I sat opposite to you, but since it left you are sitting opposite to me!"

BETWEEN BIRD AND BOUGH.

A Thrilling Climb For an Egg.

A FEW years ago (says a well-known naturalist), far out over the water, in one of the big elms on the banks of a river in the Southern United States, was the nest of a yellow-throated vireo. I contemplated that nest for half a day. I dreamed of it that night. Have it I must; and, telling no one, I went alone to the quiet corner of the creek.

To reach the nest I must not only climb the tree to a considerable height, but must then creep along an overreaching limb, with no supporting branches near. Once there, the creek only would be beneath me, except a single outstretching branch of a large maple that stood opposite the elm. If I fell, this might catch me; if not, a plunge into the creek, twenty or more feet below, was the only alternative.

Foolhardy as it was, I resolved to try, and up that elm I clambered, with, I must admit, mixed feelings of determination and doubt. The upward climb was easily accomplished, but that outward creep—ah! it makes me shudder to recall it. Needing all the grasping power I possessed, I took off my shoes, and found that bared feet were far more available as claspers than one might suppose.

The outward creep was commenced, and a yard brought me fairly over the black, deep water. I dared not look at it, but, keeping my eye steadily fixed upon the nest, slowly crept forward. I was my length from the base of the limb, and over the middle of the creek. A half-length was yet to be accomplished, and I was within reach of the nest.

Carefully I moved forward yet a little further and tremblingly put out my right hand and took up an egg. I placed it in my mouth; then another was secured, and now I was content to withdraw. But how?

I tried creeping backward, but it was not practicable. My clothes caught in the bark and held me fast. I must go forward or drop; but the former was, of course, impossible. Must I drop, then, into the water?

At this moment the birds returned—or, if hitherto silent spectators, were now emboldened to attack me. That they recognised my utter helplessness I do not doubt. The little feathered furies dashed at my face with wonderful vehemence, snapping their beaks viciously in my very ears. I feared for the safety of my eyes. I was forced to continually move my head from side to side to avoid them, and finally, in so

doing, relaxed my grasp so far as to slip from the upper to the under side.

Here was a dilemma I had not foreseen. Hitherto my weight was equally distributed along the limb of the tree, and the necessity for exertion at a minimum; now I was forced to cling by my arms and legs crossed over the branch—and to remain long in such a position was impossible. There seemed no alternative but to let go and drop into the creek.

I was in utter despair—and then, it seems, the brain puts forth its best efforts. I suddenly thought of the maple branch beneath. Could I reach it with my feet? A downward glance showed me that I might—but how the deep waters sparkled with glee at the probability of receiving me! Could I battle them?

Grasping, with all the energy of despair, the elm bough with my hands alone, I let my feet drop, and they both pressed the branch. What a relief! But alas! the maple bough could not sustain the pressure without some yielding, and I swung between the two, with a firm hold upon neither.

There was but one way to proceed. I could not regain the elm—I must trust wholly to the maple. Even when one has but a single chance, he often hesitates; but very soon my arms rebelled, and I was forced to relinquish my hold.

It was, to be sure, a matter of one chance in a hundred, but as it happened, it proved a success. I fell forward flatly upon the bough, and secured a firm hold, without a scratch or bruise.

Slowly I dragged myself forward toward the trunk of the tree, and, once grasping it, was so eager to feel the firm earth under me that I could not take time to clamber down. I gave a jump, and touched Mother Earth with a cry of joy. But the eggs—alas! I had swallowed them!

Impulsive But Generous.

GENERAL FRANKS, a leader of many a dashing charge in India, held a unique position among his soldiers. They loved him for his courage, but were sometimes irritated by his strictness.

Yet, in spite of this exacting severity, he was unexpectedly lenient when a large occasion demanded it.

One day, when the regiment was firing blank cartridges, a bullet whistled past him. He did not stop the firing, but when the rounds ordered had been completed, he rode up to the line and said:—

"Boys, there's a bad shot among you. He nearly shot my trumpeter, and what should I have said to that boy's mother? I don't want to know the blackguard's name. The officers will not examine the men's pouches."

This was on the eve of a campaign, and before action the senior major came to him and said:—

"Don't put yourself in front of the regiment tomorrow, sir. You know there are always one or two bad men in a regiment."

"Thank you, major," was the reply. "It's very kind of you. I might have given you a step."

When the line was drawn up for the final advance, he put himself at its head, and called:—

"Boys, I'm told you mean to shoot me to-day. Take my advice, and don't shoot Tom Franks till the fighting's done, for you won't find a better man to lead you!"

The regiment answered with a cheer, and carried the Sikh batteries with the bayonet rather than run the risk of shooting their beloved old fire-eater.

They Acted as Pilots.



(1) People often asked Buffer why he had two dogs—one all black and the other all white. "Why!" said he, "my way home at night lies over a long, lonely road, so I have my dogs to lead me, for when—(2) I am crossing the snow-covered moor my black dog takes the lead, then—(3) when I go through the dark wood I follow my white dog. See?"

MONARCHS OF THE SEA.

Chats About Some Great Ships.

A PENINSULAR AND ORIENTAL LINER.

WHEN first we saw the *Victoria*, she was lying nose to the quay, in Southampton Dock, numbered "One," painted white and occupying a large slice of the basin. Some neat and cheerful officers came and watched the tug in which I had embarked pass round and out into the open Water of Southampton, to board the hardy *Norman*, already described by us.

Since then the stately *Victoria* has acted as a Government transport, but she has recently been again placed on the list of the Company's vessels.

"The Peninsular and Oriental Company, sir, are identified with the military history of England more than any other line!"

"Yes, I can believe that. You inaugurated the Overland Route to the East?"

"We did," replied the officer. "Waghorn started—or rather, restarted—the route. It was used years ago. In our time, at first, there was no railway over the desert, no Suez Canal. It was a tedious journey to Cairo, and thence across the desert. We then went down the Red Sea, as usual."

"But your ships were much smaller in those days, were they not?"

"Rather! Why, five-and-twenty years ago the average tonnage of our fleet was a little over 2,000 tons! Now it is 4,700; and while the *Victoria* is 6,530 tons, with 7,000 horse-power, the *Australia* and *Himalaya* are 7,000 tons, and 10,000 horse-power! We possess 58 ships, with a total tonnage of 268,836!"

"Was not the *Himalaya* a Government transport?"

"Yes; she was one of our ships—the old *Himalaya*, you mean. She was *too big* for us in those days—some thirty-six years ago—and we sold her to the Admiralty. She was only half the tonnage of the *Victoria*, though."

"Yes; I remember her. You have a great deal to do with the Transport Service?"

"Ay, ay! From the Crimean War—and before it, too. We carried to the Crimea about 60,000 men, besides officers and thousands of horses. In the Indian Mutiny time we were able to despatch troops with speed, and so enabled the rebellion to be checked."

"Excellent service. And in Egypt, too?"

"Yes. In that terrible Soudan business, when the Government delayed to send troops until the last moment. Of course, then there was 'racing and chasing,' as you may believe. The Board of Admiralty applied to the company to transport two regiments from Cairo to Suakim in double-quick time. The company sent the *Thibet* and *Bokhara*, then on their way out, through the Canal, and while in it both vessels were fitted up for the reception of troops. Thus, when they reached Suez, those two

passenger steamers were already changed into transports ready for the soldiers!"

"Smart work that," we said.

"Well, it was pretty good; and we regard it, so far, a record, because one ship was despatched, loaded, in ten hours, and the other in sixteen hours (equipped, provisioned, complete, with fifteen hundred men) after arrival at Suez!"

"Some of your ships are also armed cruisers?"

"Yes; like other companies' vessels, we are prepared for war almost at a moment's notice. The gun platforms, etc., are ready, and we have actually had vessels at Sydney and Hong-Kong in commission during a 'scare'!"

"Is the *Victoria* fitted as an armed cruiser?"

"Certainly. You'd like to see her, perhaps."

"Very much indeed."

"She will be home again before very long, and then we'll give you a line to the commander, if you

"I suppose there must be a change in every direction? The fittings must be altered in every ship?"

"I believe you. It's simply a small town, or big village, with its tradesmen's shops, I may say, its libraries, its coal, its workshops, and even its police cells for lunatic or refractory people. Just imagine, every needed appliance! Here is the bakery, for instance; there is the forge, here are the stables, yonder the cattle-pens; here is a hospital or sick-bay, there are the baths; here is the prison, and there the asylum, the nursery, the convalescent ward! In fact, you have men, women, and children, of all sorts and conditions, to look after and to keep alive."

"They have plenty of room, no doubt?"

"None too much. In the Government ships—well, let them pass. This is the *Victoria*, but we must abide by regulations. The women and children are kept mostly to themselves, of course,

and can't run about much in the fore-castle. The officers' wives and families are in the after-part, and have as much liberty as they please."

"And how do you arrange about meals?"

"The troops are divided into messes, and the rations are issued according to scale, at certain times, as per notices. The men, women, and children have different scales of rations and a different bill of fare for every day; and the amount of beef and the other things are served out in proper proportions to the messes—so much per man."

"Besides the men and women, you carry a good number of horses, too, sometimes?"

"Oh, yes—depends. If it's a cavalry regiment, we have a couple of hundred horses at least. These have to be swung on board and put into the 'boxes' we have knocked up for them."

They require plenty of looking after. Sometimes a cow may get loose and take a stroll, and then see the women run!"

"How do the soldiers manage to employ themselves all the time?"

"Why, there are libraries full of books for those who like reading, and many try them; but, besides, there is plenty of occupation for them, one way and another, generally."

"What can they do? There are no sails to trim, and so to help you is difficult."

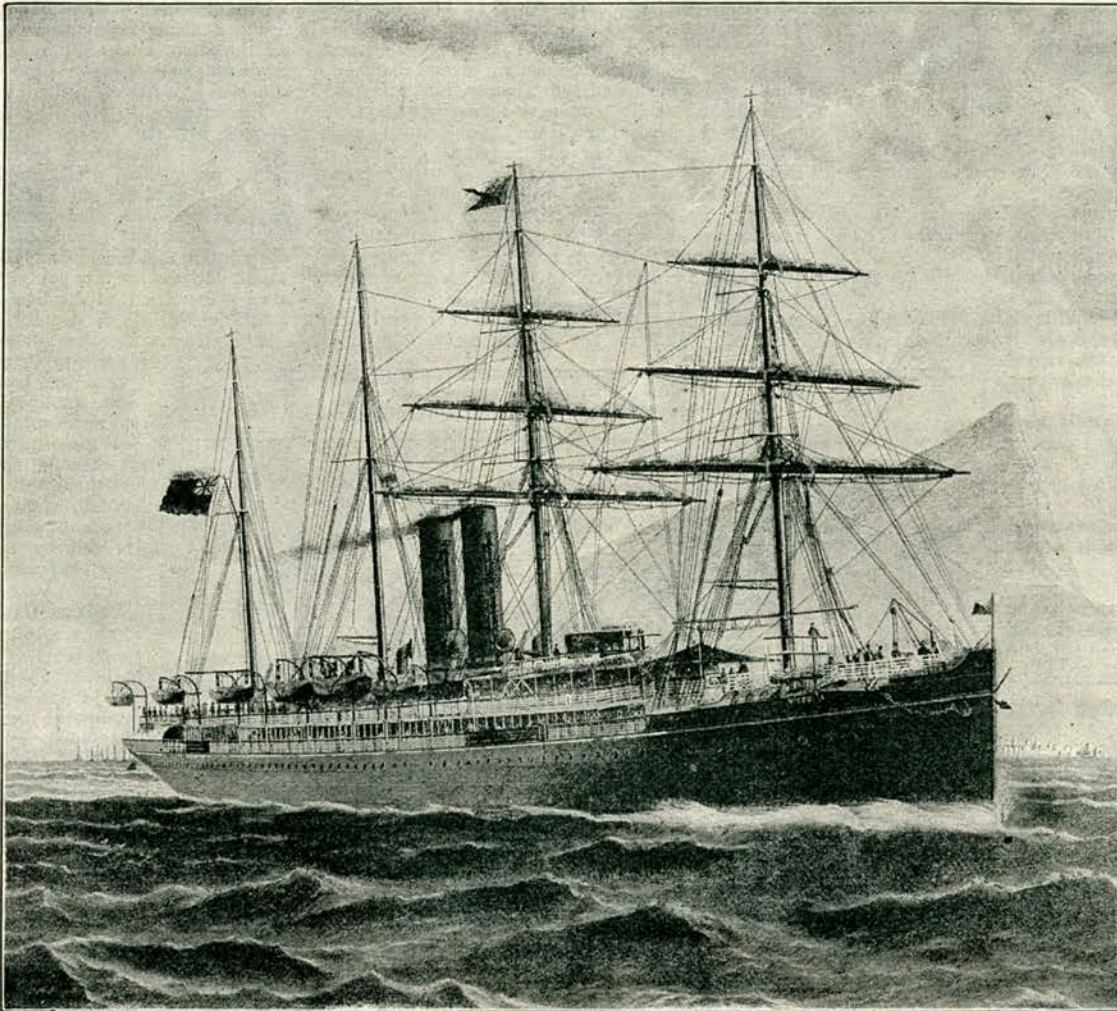
"Not at all. In the first place, a soldier can do with plenty of leisure; then he is a handy fellow, and can assist in cleaning the decks and rub up the brass work. If there are horses on board, there is amusement and duty in attending to them; and we have games, theatricals, 'negro' minstrels, and any amount of music, cricket, and so on."

"How do you play cricket? Surely the ball must get lost very quickly!"

"Oh, no. It is tied to a long string, and is easily found again. The band plays, too, and they like to hear it."

"Where do you stop, supposing you are bound for India, for instance?"

"At Gibraltar first, then Malta. Very likely we



THE "VICTORIA"

wish. Meanwhile, here is a photograph of her, which you can look at."

After warmly acknowledging the kindness of the managers of the company, we took an opportunity to ascertain the details of the Transport Service. But we are reminded that the *Victoria* is also a splendid passenger ship, and that her fittings and general arrangements are not inferior to any of the other monarchs of our mercantile marine, as a peep into her cabins, saloons, and smoking-rooms will prove. She is an immense ship, but there are, as we have said, bigger giants in the P. and O. fleet already!

"We celebrated our jubilee in 1887, and this vessel, the *Victoria*, is one of the four ships we built to mark the epoch," said our friend.

"When she is used as a Government transport, there is considerable difficulty in altering her, I suppose?"

"Not so much as you might imagine, for we have skilled and ready hands. But soldiers—I mean the rank and file—are not altogether happy on board. They must be crowded, you see, and in some of the old troop-ships lately some fearful experiences were related. Not in our boats, though—in the old 'snails.' The crowding was awful; and the air! Well, there wasn't much 'tween decks!"

have drafts for the garrisons, and by that time the men have got over their sea-sickness, probably. The disembarkation, and perhaps re-embarkation, occupies attention, and we have stores to fill in. Then we go on to Port Said, Suez and Aden."

"Of course, the consumption of food is enormous." "You would say so if you could see the meat, fresh and tinned: thousands of pounds' weight of the latter; hundreds of thousands of pounds of biscuits, flour, rice, pickles, raisins; and gallons (in thousands too) of porter. Every soldier may have, say, a pint of porter on Sunday."

"The officers and their wives live in the saloon, of course?"

"Yes; the officers drill the men, and parade them, to give them exercise, and the discipline is wonderful. You remember the *Birkenhead*?"

"Are all your passenger ships treated as well?"

"Better in many respects, of course. We spare no pains. Perhaps you would like to know just a little about the provisioning of our fleet. Most people are interested in the commissariat department, and we represent Transport as well. The cost is—what do you think, for our 58 floating hotels? Give it up?"

Yes, we gave it up. "Can't guess."

"About three hundred thousand pounds a year, that's all," was the reply.

"Oh, that's all, is it? But can you keep the meat properly in the tropics?"

"Of course, by the aid of refrigerators. Ice is now obtainable in any quantity, and dry-air refrigerating machinery is available."

"Rather a costly cargo, isn't it, besides the space occupied?"

"Well, yes. Our ice bill is about £22,000 a year, and, as you say, the space it occupies is very valuable. So we may estimate the full cost of the ice business at near £66,000 a year!"

"Dear me! But you only supply ice to cabin passengers, I presume, not to the steerage?"

"That's all. But do you know why?"

"No, unless it is too expensive."

"Wrong, sir; that is not the reason at all."

"Why, then?"

"Because we only carry 'cabin' passengers. We have no 'steerage' in the P. and O."

Always Regarded with Terror.

AN impressive description of the terror produced by the appearance in Argentina of a rather small hawk, of a species unknown to the narrator, although he has seen it a hundred times, has recently been given. The bird is a marsh hawk; that is to say, it seeks its prey in marshes.

I have frequently seen all the inhabitants of a marsh stricken with panic (he says), acting as if demented and suddenly grown careless to all other dangers. On such occasions I have looked up, confident of seeing this particular hawk suspended above them in the sky.

All birds that happen to be on the wing drop into the reeds or water as if shot. Ducks away from the shore stretch out their necks horizontally and drag their bodies, as if wounded, into closer cover. Not one bird is found bold enough to rise and wheel about the marauder—a usual proceeding in the case of other hawks—while at every sudden stoop of the falcon a low cry of terror rises from the birds underneath—a sound expressive of an emotion so contagious that it quickly runs like a murmur all over the marsh, as if a gust of wind had swept moaning through the rushes.

As long as the falcon hangs overhead, always at a height of about forty yards, threatening at intervals to dash down, this murmuring sound, made up of many hundreds of individual cries, is heard swelling and dying away,

and occasionally, when he drops lower than usual, it rises to a sharp scream of terror.

Sometimes, when I have been riding on marshy ground, one of these hawks has placed himself directly over my head, within fifteen or twenty yards. It has perhaps acquired the habit of following horsemen in this way, in order to strike at any birds driven up.

Once my horse almost trod on a couple of snipe, squatting, terrified, in the short grass. The instant they rose the hawk struck at one of them, the end of his wing smiting my cheek violently as he swooped down. The snipe escaped by diving under the bridle, and immediately dropped on the other side of me, and the hawk, rising, flew away.

When Funds Were Low.

THE impecunious Bohemians of London, when too poor to pay for a night's lodging, occasionally sleep in what they poetically name the Hotel of the Beautiful Star, or the *Hôtel de la Belle Étoile*, as it is called by those who speak French. It is a large hotel, and the lodgers can choose from among several chambers, such as the Park and the Thames Embankment; and always find elbow-room and plenty of water.

Eight or ten years ago, a well-known novelist was sitting in one of the big clubs in company with four distinguished men of letters. One of them was the editor of a London daily paper, who said—

"I do not suppose that any man in my present position has experienced in London the privations I knew when I first came here. I went hungry for three days, twenty years back, and for three nights I slept in the Park."

"You cap that, M——," said one of the party.

"Four nights on the Embankment, four days

hungry," he answered. His neighbour, a poet, chimed in laconically—"Five."

All of the party had slept in that outdoor hotel which is always open for everybody.

Held in Check.

IN many parts of Africa (and India also, for that matter) the natives seem comparatively little able to cope with the savage beasts that surround them.

As a general rule, their villages are not built in such a way as to keep out lions or other beasts of prey, who will sometimes actually carry off people—generally women or children—in broad daylight. Of course, the hue-and-cry is at once raised, and a band of the boldest hunters sets off to try, if possible, to rescue their friend.

Sometimes, alas, they are too late, and the lion has vanished with his victim to places whither it would be impossible to follow him.

Frequently, however, the pursuers manage to get within attacking distance of the savage beast.

The next few moments are a veritable lifetime to all the actors in the drama. The lion, aware that the avengers are upon him, drops his prey, but stands over it fiercely defiant.

The hunters, on the other hand, are equally impressed with the necessity for both boldness and prudence. To advance too near, without taking proper precautions, would simply be courting death; while to hazard the effect of a shot or volley from any distance with their antiquated and imperfect weapons is equally imprudent. For, in the event of the shots not taking effect, the hunters themselves would become the hunted. Furthermore, there is always the risk that the lion's victim, and not the beast himself, may be struck.

In such cases, therefore, every endeavour must be made to keep the enemy at bay until the best shots of the party can, unobserved, get close enough to make sure of their aim, and end his career of violence.

Strange as it may seem, the victim is probably the least agitated of all, since, according to most accounts, comparatively little pain is felt by those placed in such terrible positions.

Polite Under Difficulties.

EVERY act in Japan is performed with courtesy and consideration for others. Even the administration of justice is a stately ceremonial compared with the haste and harshness so common in more civilised countries.

The policeman in that country is never known to smile, and when he finds it necessary to arrest a law-breaker, his face becomes clouded by an absolute pall of sorrow and solemnity.

Grasping the offender firmly with one hand, with the other he extracts from an invisible pocket of great capacity a roll of strong cord. Whispering minute and polite directions into the ear of his victim, who obeys them with scrupulous consideration for the feelings of his captor, he winds the cord several times about the man's waist, and then fastens his wrists to the small of the back.

Six feet of cord remain. The policeman grasps the loose end, and bowing to the prisoner, with an "After you, sir," the pair march away in a touching union of sadness and security.

The neighbourhood is paralysed during the performance; business is suspended, traffic is stopped; but the moment the polite policeman and his politer prey have disappeared round the corner, all the spectators burst simultaneously into laughter, and two minutes afterwards the affair is forgotten.

ANXIOUS FATHER: "You are of age now, and I want to give you a little pointed advice as to how to keep money. You—"

MATTER-OF-FACT SON: "But wouldn't it be better first to advise me how to get it?"

More British Sports—Illustrated.



Hunting.



Cycling.

MONARCHS OF THE SEA.

Chats About Some Great Ships.

H.M.S. "ROYAL SOVEREIGN."

"YES, sir, she's a battleship, and no mistake; and, more than that, she's the heaviest and the most powerful vessel in the service!"

I could well believe the statement of the young officer, who seemed so proud of his ship and of his profession. But being only a landsman, I wanted particulars and comparisons. So, in the interests of "Chums," I put a few questions to my friend.

"Well, let me see," was the reply; "you want some comparative ideas. You are pretty well acquainted with London, I suppose? So, then, you remember the model of the *Victory* which was in the Naval Exhibition? You recollect, I daresay, what a size she—or it—appeared in the gardens?"

"Yes." I remembered her quite well.

"Then the *Royal Sovereign*, you must know, is twice as long as that model, and two of the same length would more than bridge the Thames at Battersea. In width she would fill the roadway and one of the pathways of Waterloo Bridge."

"Magnificent!" I exclaimed.

"Curious that you said that for the *Magnificent*, another splendid specimen, has recently been launched. But there are other points about the *Royal Sovereign* which, perhaps, may assist your friends to realise what a colossal vessel she is, and what her strengths. Just jot these facts down before we run over her. Are you ready?"

I signified assent, pencil in hand, and my informant proceeded:—

"She carries four 67-ton guns, which can each fire, every eight minutes or so, a projectile weighing 1,250 pounds, and this shell, at 1,000 yards distance—nearly three-quarters of a mile—will penetrate a shield of wrought iron 27 inches thick! Just digest that, if you please."

"The fact, or the projectile?" I inquired, as I tried to grasp the full significance of the statement.

"I don't think you'd like to try the projectile," he replied. "But I can tell you some more facts. Her other guns—or what is termed the 'secondary armament'—consist of ten '100-pounders,' sixteen 6-pounders, and eight 3-pounders, quick-firing guns. The 6-inch calibre guns can fire five 100-pound shots in a minute! Yes, and they travel at the rate of 130,000 feet in a minute, or over 2,000 feet in a second!"

"But in such an enormous vessel the propelling-power must be very great? Her engines must be tremendous, and the difficulty of giving orders immense."

"Oh, that is managed by telegraphs and tubes! She contains thirty miles of electric-lighting wires in use; and, as to engines, I suppose you referred to the propelling engines?"

"Of course! What other engines, except that for the electric light, and perhaps for steering, are necessary?"

"What others! We have at least eighty steam engines on board, including those for the screws, the steering, compressing air, for forced draught, distilling water, hoisting boats, etc., lighting, ventilating! Why, we have over 800 electric lights in the ship, and we can carry 900 tons of coal!"

I was silent. Such things seem almost incredible to a landsman unaccustomed to deal with our ocean-going ships and our Naval Monarchs. Fancy this monster vessel, propelled by engines of 13,000 horse power, at nearly twenty miles an hour! Fancy the effect of the 1,250-pound projectiles, with their terrific impulse of 630 pounds of powder; and the 100-pounders' hail of shell at the rate of five a minute, with a velocity of 2,200 feet in a second, or 25 miles a minute! Think of it!

The *Royal Sovereign* is one of the eight battleships constructed under the Naval Defence Act, all of which—except one, the *Hood*—are *barbette* ships, the heavy guns being carried outside on towers, or redoubts, well protected by armour 17 inches in thickness. The four 67-ton guns (two fore and two aft) are thus high above the deck, and command a wide range of fire, besides permitting of a higher "free-board," or bulwark, in the ship itself.

These big guns are 13½ inches bore, and the loading arrangements, by hydraulic power, are within the redoubts. The *barbette* is a platform on which

The *Royal Sovereign* was launched on the 26th of February, 1891, when the Queen went to Portsmouth to witness the ceremony of floating that ship and the *Royal Arthur*—which latter vessel is not an armour-clad, by-the-by—and baptised them. The *Royal Sovereign* is only one type of man-of-war. We hope to speak of others later.

Now, having given a sketch of the power of the battle-ship, let us look at the men and their daily life in times of peace, when they are not called to quarters, to fire the immense guns, and to manœuvre the vessel amid the storm of battle and the hail of shell and shot. We will briefly glance at the daily routine of a man-of-war, which will give you some idea of the enormous responsibilities assumed by the sailors, from the captain—who has the heaviest weight to bear—to the seaman.

We will commence at the lower grade, and work upwards; and, as the safety of the ship depends upon the care taken by the look-out, we may begin with the "watch," or watches, into which, as in the merchant-marine, the ship's company is divided.

Listen to our young officer—

"The watches are divided into five periods of four hours each, and two periods of two hours each. The first is the 'first watch,' from 8 p.m. until 12; the 'middle watch,' 4 to 8 a.m.; the 'forenoon,' 8 to 12; and the 'afternoon,' 12 to 4 p.m. Of course, four hours remain—viz., from 4 to 8 p.m.—and if this time was reckoned as a watch, the same men (if the halves of the ship's company came up in rotation) would keep the same watches all the cruise. This would be unfair."

"The men are divided into starboard and port watches, then?" I said.

"Yes, and the hours from 4 to 8 p.m. are divided into two periods called 'dog' watches. By this arrangement, a change in the order is made, and each set of men has a day and a night turn. In harbour there is no night work except a guard; the ship's company works all day."

"Everything is very orderly, evidently."

"Rather! Just a regular round all day. Duties come in order day after day, as a rule, and no one is idle. There is always something to be done on board every vessel, though, of course, there is a period of relaxation for the men—for all work and no play at all will make even Jack a dull boy."

"Drills, cleaning, practice, and such work, I suppose?"

"Yes; practice, instruction, signalling, or fire-drill, entlass-drill, or gymnastics, perhaps, or a night-alarm—say a torpedo scare, or an attack by

NOTICE.

In addition to D. H. PARRY'S NEW STIRRING ADVENTURE SERIAL (referred to on pages 499 and 510) NEXT WEEK'S Number will contain a specially-written account of

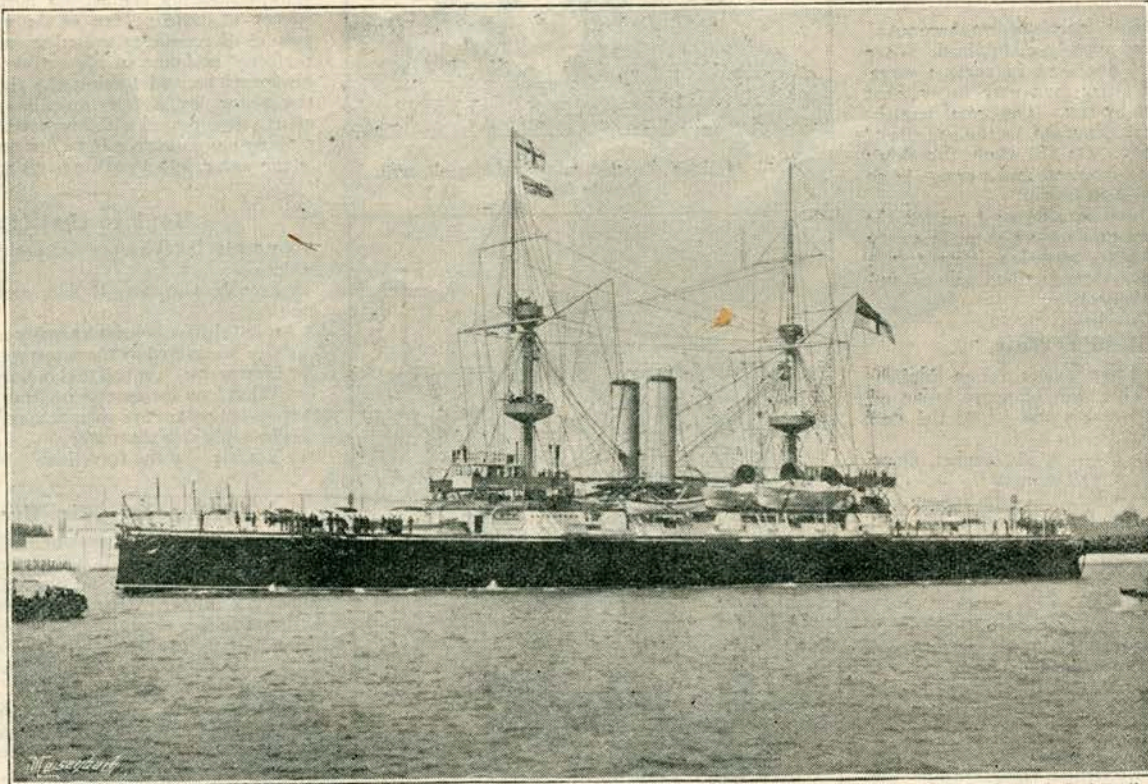
BOXING AND FENCING AT ALDERSHOT:

A Chat with our Finest Army Swordsman.

Accompanied with

FOUR REALISTIC PHOTOGRAPHIC ILLUSTRATIONS.

Look out for No. 135, ready next Wednesday and tell all your Chums.



H.M.S. "ROYAL SOVEREIGN."

Photo. Symonds & Co., Portsmouth.

the guns are elevated and fired—not through embrasures, as in turrets, but over the top of the breast-work. The guns can be turned in any direction, and, being so high, have an extensive range. The 67-ton gun is 36 feet 1 inch long, and rifled; the full charge is 630 lbs. of powder, the cartridge being made up in quarters. Of course, being "outside" the towers, the guns are quite exposed to the enemy's shot, but in some new ships, it is expected, a little more protection will be given.

It remains to state that the ship is protected by a steel belt, 18 inches thick, 252 feet long, and 8½ feet high. The vessel is 380 feet long, 75 feet wide, and draws 27½ feet of water, so nearly two-thirds of the hull is armoured at the sides. Steel decks, steel shields, and armoured bulkheads protect the guns of the secondary battery and the men in action.

Having heard so much about the guns and the machines, one was naturally curious to ascertain how such enormous projectiles can be handled in action, for men cannot walk about with shot weighing 1,250 pounds each. The transport of these immense projectiles is accomplished by hydraulic machinery and lifts.

The shells for what is termed the "main armament" are carried to "bogeys" (troughs) from the racks by hydraulic machinery, and the "bogeys" are then pushed by the same means to the lifts—for the magazines are down below, out of danger. The shells are then pushed by hydraulic runners up the slope to the hoist—so there is no fear of the shells running away down a slope, and exploding—and are, with the powder, then lifted to the required stations ready for use.

boats, for a surprise in which men and officers are equally upon the alert. Besides these uncertain duties, the officers, from the middies upwards, have a regular round of work—watches, look-out, signal duties, steering (that is, superintending the signalmen and steersmen), and many other duties in the off-watches. As for the men, they are employed upon the various guns, keeping them clean and bright; brasswork has also to be scrubbed and polished, and decks cleaned. Then clothes require mending, and other 'social' duties have to be performed by all, from the visitation of the sick, and prayers, down to the killing of the animals for food."

"The captain has a pleasant time, I suppose?"

"He is, with the exception of the commander or first lieutenant, the busiest person in the ship; but his duties are largely diplomatic. To him reports are continually being made respecting all that transpires—the signals, the speed, the navigation—and he must be, of course, practically acquainted with 'steam' and electricity, and he answers all signals. The navigating officer has to report progress to him, but all the time he is not much in evidence; he is in his cabin mostly, but he knows everything that is going on, even to the amount of coal left to burn."

"There are punishments sometimes, are there not?"

"Of course, discipline must be maintained. When necessary, the men are punished in various ways. There is a scale, and every man may know what punishment he incurs by law. The worst punishment a man can incur is dismissal, as the benefits of the service are so many. On the whole, the ship's company is settled and contented, and a cruise is no great hardship to anyone on board."

This ended the interview, and as I quitted the splendid battle-ship her guns looked at me in a very threatening way, which contrasted strikingly with the hospitable reputation of her gallant officers, and the kindly glances of the men.

They Didn't Wait.

ONE of the most noted lion-tamers was an Englishman named C—. This man of nerve broke an engagement with one manager and joined the staff of another manager, Mr. D—.

While C— was at D—'s, in London, along came two bailiffs with a writ against C—. The writ was a legal summons for C— to appear and show cause in court why he had broken his first engagement.

The bailiffs—swaggering fellows—asked gruffly for C—.

Mr. D— said blandly—

"He is upstairs; walk up, gentlemen."

Up they went. There sat C— in a great cage, with an enormous lion on each side of him.

"There's Mr. C—, gentlemen," said Mr. D—; "go in and take him. C—, my boy, open the door."

First causing the lions to roar, C— threw the door back, and turned, with a bow, towards the bailiffs.

They had already vanished!

Jaws Against Claws.

AN English hunter in India once had the fortune to see a fight between a full-grown male tiger, of the largest size, and an enormous crocodile. The hunter was concealed upon the bank of a deep and sluggish stream, waiting for game.

Although he knew that the place swarmed with crocodiles, he had seen none during his watch, as they are apt to lie motionless near the shore, with every portion of them hidden save the eyes and nostrils, which are raised above the plane of the face, and thus await the approach of some animal.

They have two modes of attack. One is, if they can get sufficiently near their prey, to seize it in their terrible jaws, and drag it to the bottom of the water. At other times, when an animal draws near the water, they suddenly sweep it into the stream by a rapid and powerful blow of the tail, and then seize it and drag it down.

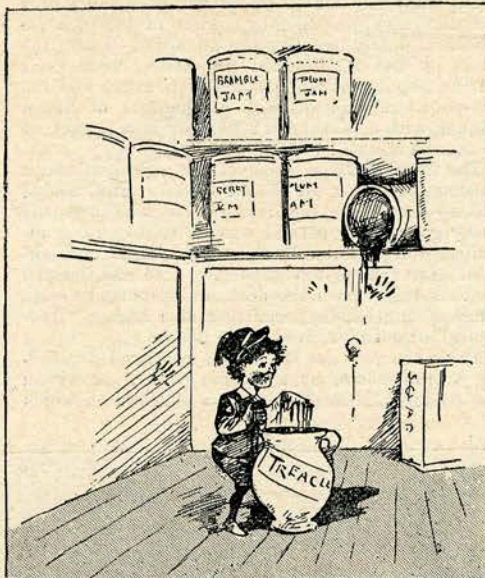
Sheathed in scaly armour, composed of plates of various size, and with its powerful jaws and teeth, and long, flexible tail, the crocodile is the most dreaded animal which inhabits the waters, as the tiger is the most dreaded land animal of the Indian wilds.

On the occasion referred to, the sun was just rising, and the birds beginning to sing, as the hunter saw, on the opposite bank, a grand tiger, accompanied by his mate, approaching the water, evidently for the purpose of drinking, before seeking his lair in the jungle, to sleep away the hot hours of the day.

The birds twittered and flew away as they passed,

Solving a Difficulty.

A New Use For Treacle.



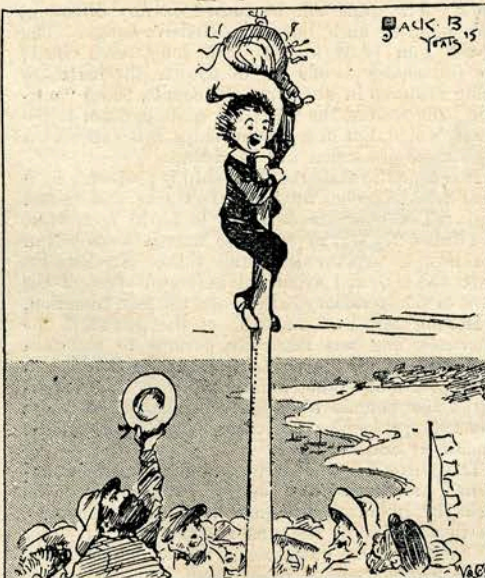
I.

What is little Georgie smearing himself with treacle for?



II.

It is the day of the sports; and after all the other little boys have failed to climb the greasy pole and get the prize ham—



III.

Georgie (sticky with treacle) does it, amidst great enthusiasm.

while the monkeys, swinging from the branches high above, chattered in mingled rage and fear at the passing figure of their most dreaded foe.

When they reached the stream, the tigress, more cautious than her lord, stopped to take a look around before venturing to the water, but the tiger at once stepped in, up to his breast, and began lapping, exactly like a cat. Just by him, with nothing exposed but his stony eyes, was the crocodile, and, with an imperceptible movement, which caused not the slightest ripple on the water, he approached, and, as the tiger stooped again after his first drink, with a rush so rapid that the eye could not follow it, the powerful reptile seized the animal's head in its armed jaws.

With a stifled roar of rage and surprise, the tiger made a tremendous effort to wrench himself from the cruel grasp, while his relentless and powerful foe, lashing the water into foam, tried to draw him in deeper, regardless of the powerful blows that the tiger dealt with its heavy paw, the sharp claws of which glanced harmlessly off from the mailed covering of the huge reptile's head.

Step by step the animal was drawn away from the bank, struggling against his horrible fate with the energy of despair; but as the water deepened his powers of resistance grew less, while the crocodile perfectly at home in his native element, redoubled his exertions, and forcing the tiger's head beneath the water, by a few quickly-repeated, powerful efforts, disappeared with his prey to the bottom, when nothing more was seen but a few fast-widening circles in the water, and a red tinge rising to the surface.

Kept to the Truth.

A COUNTRY hotel-keeper had posted on his door this notice:—

"French, German, Italian, and Spanish spoken here."

An inquisitive tourist casually asked the landlord one day who acted as the interpreter.

"Interpreter," replied the landlord, "there is none."

"What! no interpreter? And yet you announce that all languages are spoken here."

The reply was charming—

"Yes, sir—by the travellers."

Living By His Spectacles.

A GENTLEMAN, who is now one of the richest merchants in Paris, was so poor twenty years ago that very often he was without the means of procuring himself a dinner. His hopes were, however, inexhaustible, though the sole capital for investment in daily bread was a pair of spectacles in gold frames, which he was obliged to wear on account of his being short-sighted.

At times, when the inside of his pocket was as empty as his stomach, he would enter a restaurant and order a plentiful dinner. When his hunger was satisfied he would rise from table, and, putting his hand in his pocket, cry out, with well-acted surprise and agitation—

"I have forgotten my purse!"

Sometimes the proprietor would be good-natured enough to say—

"Never mind, you will pay me the next time."

But if he became angry, and reproached the unfortunate in terms devoid of all compliments, he would say—

"Calm yourself, my good sir! I will leave you a pledge well worth the value of your dinner"; and, taking off his spectacles, he would lay them down, and make as if it were his intention to gain the door.

But, alas! he seemed as though he could no longer find it. He would tread on a lady's dress, tearing it from the band; stumble against a waiter, upsetting a pile of plates; throw down the chair of an old man who was taking his soup; or fall against the panes of glass in the door, all the time begging a thousand pardons, and laying the blame on the loss of his spectacles. In this manner he never failed in securing the pity of all who were present, who murmured audibly—

"Poor man! he will never be able to find his way home; he will be run over by the carriages at the crossings. It is robbing him of his eyes to take away his spectacles."

Hearing these murmurs of pity and indignation, the proprietor, fearful of losing popularity with his customers, would call back the poor man, and restore him his spectacles, when he would depart, promising to send the price of the dinner.

He carefully wrote down all these debts, and, when fortune at length smiled upon him, he scrupulously paid them—the total number of dinners thus eaten amounting to one hundred and eighty-three.

MONARCHS OF THE SEA.

Chats About Some Great Ships.

A FIRST-CLASS CRUISER: H.M.S. "BLAKE."

"YOU can't have any better type of cruiser than the *Blake* or *Blenheim*," replied the officer to whom I addressed myself. "They are first-class ships, speedy and excellent types of what a cruiser should be."

"But there are other types?" I suggested.

"Certainly. Still, you cannot describe them all unless you write a book. They are arranged in classes, as are the battle-ships, and vary in some particulars. In the battle-ships we have turret, citadel, and barbette vessels; in the cruisers are steel-decked and belted ships of varied types.

"A cruiser is, of course, a lighter vessel than a battle-ship. She must act as the eyes and ears of the fleet—as a scout, in fact—steaming at a high speed to give the information she has gathered, but able to hold her own in fight should fighting be necessary.

"Other uses? Certainly. A cruiser must act as a protector to commerce as well as a fighting ship or a scout. She is a convoy-ship, and if our steamers are unarmed she protects them. As a matter of fact, the cruiser takes the place of the old frigate, and such ancient men-of-war as the corvette and sloop. When we see foreign Governments building ships avowedly to destroy our, or other, mercantile marine, we must counter-balance them by affording adequate protection. Many of our large mail and passenger 'liners' are now armed cruisers for their own protection under Admiralty rules and regulations."

"Then the Government desire large cruisers?"

"Well, the Admiralty Board was inclined to modify their previous resolve. The general idea is now tending to more cruisers of a somewhat superior strength. For instance, there are twenty-nine of the *Apollo* type, built under the provisions of the Naval Defence Act (1889)—vessels of about 3,400 tons, while the *Blake* is of 9,000. Again, there are the *Royal Arthur* and the *Edgar* set of nine ships, of 7,350 tons, mounted with 22-ton guns like the *Blake*, besides the big *Powerful* and *Terrible* of 14,200 tons."

"These are not really armour-clads, then?"

"No; they have steel decks, which shelter all the 'vital' parts, and no side armour: They are steel-deck 'protected' ships. No ship is completely armour-clad. The *Royal Arthur* was launched with the *Royal Sovereign*, and was originally named *Centaur*. She was designed and intended to carry the same armament as the *Blake*, but to be of less size and speed, and less coal capacity. We count the *Blake* and the *Blenheim* and the *Royal Arthur*, together with the *Edgar* and others of her type, as first-class cruisers.

"Begin with the *Blake*, shall I? Very well. Let me see. She was laid down at Chatham in July, 1888, and her sister, the *Blenheim*, was undertaken by the Thames Ironwork Company about the same time. They are the heaviest unarmoured cruisers of their period. Her protection is a steel deck which extends over her whole length—an immense shield, six inches thick at the top and three inches at the sloping surface."

"But is that sufficient? Six inches of armour is not the greatest protection possible or advisable?"

"No, not if vertical. But it is calculated that six inches on the curved deck are equivalent in resistance to direct fire as twelve inches of vertical armour plating, the resistance of sloping, thin armour-plate

being greater than when vertical. Whether this will prove to be the case in action remains to be proved, but it has been tried in peace-time.

"At any rate, the engines, magazines, boilers, and all appurtenances likely to suffer are sheltered by the steel turtle-back deck, from which shot will glance off. There is no other armour above her water-line, but she is double-bottomed and built in compartments, with steel deck. Nearly all our cruisers are 'protected' like the *Blake*, more or less."

"She is speedy and well-armed, of course?" I suggested.

"Decidedly; a cruiser's guns are mounted fore and aft as well as on the broadside. A ship that chases another may be chased in turn, so her big 22-ton guns are mounted stem and stern in protected towers. Besides these (called 'main armament'), the *Blake* possesses quick-firing six-inch guns and many Nordenfeldts. She also carries torpedoes to launch at an enemy from tubes. Some authorities do not agree with this type of cruiser. There are other types with 'vertical protection,' as the *Orlando*. That erec-

ramming them, and slewing the gun round in a couple of minutes, or even less time.

"The powder is used in large quantities, but is slow in burning?" you say. Yes, it is called cocoa-powder, because it is the colour of chocolate, and not in grains as you generally see gunpowder, but in small lumps, with a hole in each six-sided prism to admit of perfect combustion. This is 'brown prismatic powder,' and it requires 900 lbs. of it to propel a projectile from the 110-ton gun, but then the shot will travel nearly twelve miles!"

"These guns must be expensive?"

"Yes; the 110-ton gun costs considerably over £19,000, the 67-ton gun costs £13,600, the 22-ton costs less than £5,000, the 36-cwt. gun, £568. The smokeless 'cordite' powder is now in use, and is much more powerful than brown powder. It is called 'cordite' because it looks something like cord.

"Quick-firing guns? Oh, of course we use them. The Hotchkiss, Nordenfeldt, and the 6-inch Elswick quick-firers, which can be used either on the upper deck or 'tween decks, with or without the shield.

The *Blake* has two 22-ton guns and 6-inch quick-firing 100-pounder, 4.7-inch 45-pounder, 3-inch 12-pounder, and Nordenfeldt and Hotchkiss 6-pounder and 3-pounder guns, all fitted with steel shields. There are also Gatling guns, which are sometimes used in the armoured 'tops,' the cages upon the masts. The cruisers carry no sails, but have triple-expansion engines of 20,000 indicated horse-power.

"Can I explain how the machine-guns are used. Yes, but not now. Come another day, and I will show you the way these guns are worked. There is nothing apparently difficult about them, but they are very ingenious and can fire 100 rounds a minute. Another time we will look at the *Orlando*, and then we will have a chat about machine-guns."

"May I ask if there was not a *Blake* in the old days? It is a good thing to keep up the old names, I think."

"Yes, I agree with you entirely. There was a *Blake* built at Deptford

in 1808, a wooden ship, ship-rigged, of 1,740 tons. Her guns were thirty-two 18- and 9-pounders, muzzle-loading. Her heaviest shot was 32-lbs., and the powder-charge for the gun was only 5 lbs. Very well; now listen—

"The new *Blake's* guns are 22-tons, and her heaviest projectile is 380 lbs., the powder-charge being 160 lbs.! A very considerable difference. The old wood against steel, one depending upon the wind, the other on steam; and the new ship has a hundred 'hands' less than the old one, though her tonnage is 9,000, and she is more than twice as long as the wooden ship which gave so good an account of herself in action, as, no doubt, the new cruiser will do."

The *Blake* is now flagship on the North American and West Indies station.

PROPRIETOR TO EDITOR: "Well, the first number of our new paper looks very well, but here is one thing I don't like."

"What?"

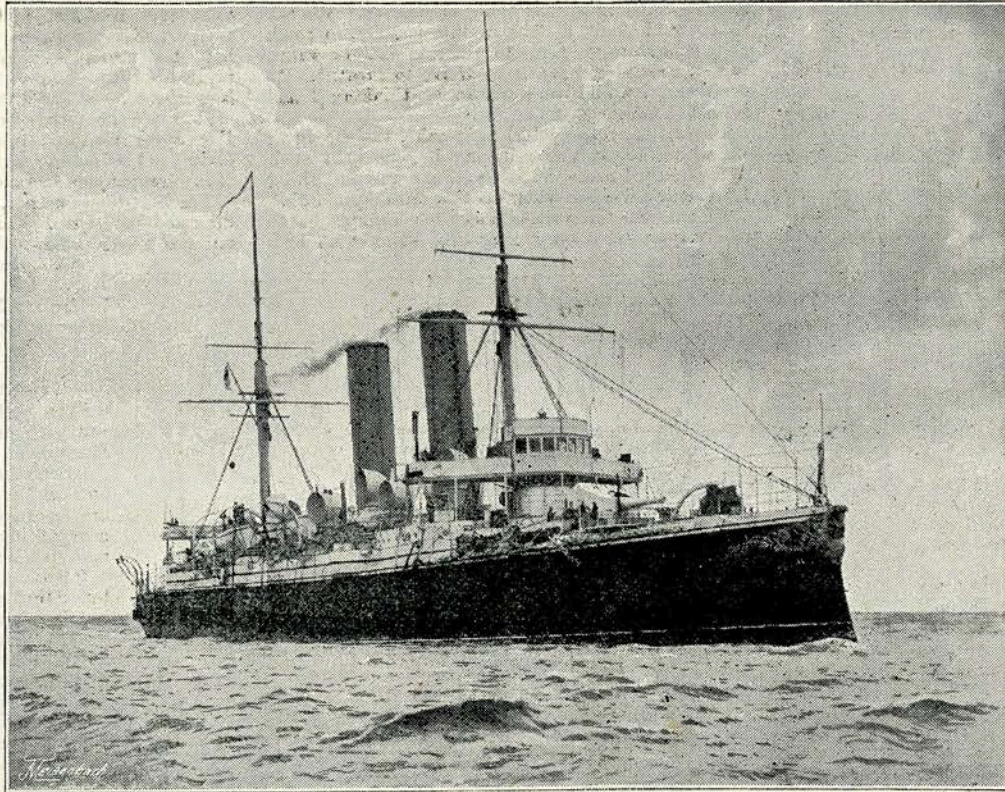
"Why this communication that's signed at the end 'An Old Subscriber.'"

TOMKINS: "I heard you started a paper some time ago."

JOHNSON: "Yes, and the first issue of it was a remarkable one."

TOMKINS: "Remarkable? In what respect do you mean?"

JOHNSON: "Besides being the first it was also the last issue."



H.M.S. BLAKE.

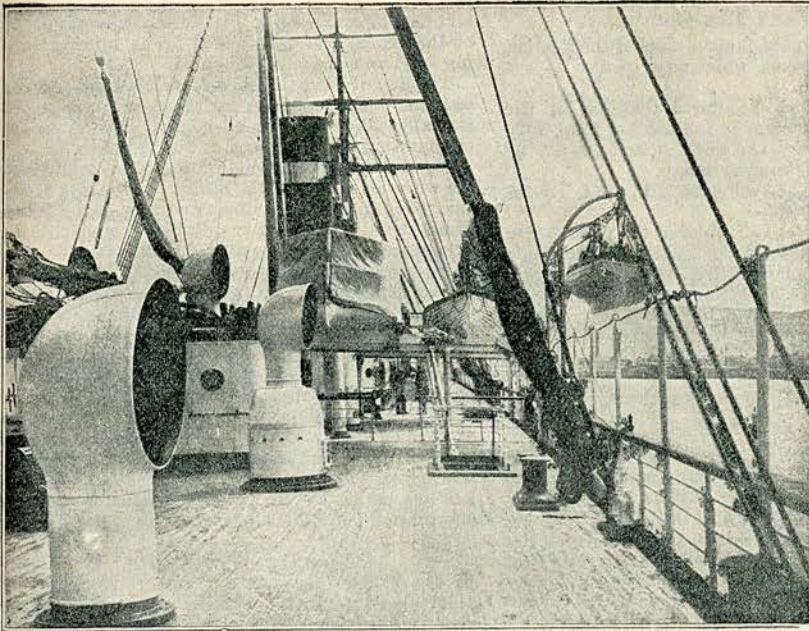
Photo. Symonds & Co., Portsmouth.

tion in front is the 'conning tower,' which is well protected. Inside that the captain stands, and from it the guns can be trained by order, and even fired (by electricity), when the proper 'sight' has been arranged. Electricity plays a very important part in modern ships of war, and hydraulic power is also used to assist in loading and bringing up the projectiles."

"How is it done? That is interesting to everyone," I said. "How are the big guns loaded?"

"By hydraulic machinery. There are various kinds of big guns. The heaviest of all—the 110-ton gun—is not in fashion. They were mounted in the unfortunate *Victoria*, in her sister ship, the *Sans Pareil*, and in the *Benbow*. But such enormous weapons have gone out of favour, and later ships are armed with 67-, 43-, 29-, or 23-ton guns, breech-loaders.

"Yes, the smaller weapons are considered practically as useful as the very large and unwieldy, costly 110-ton guns. You see, if the gun is excessively heavy and cumbersome it cannot be used if by any chance the hydraulic loading machinery is damaged. The gun is fixed upon a 'saddle,' with recoil and elevating gear in the turret, or redoubt. To load the gun, the shot or shell is placed on a trolley, or trough, which is lifted up by a hydraulic ram until it is in the line of the gun-breech, when a rammer drives the shot into the breech of the gun. The cartridge, the powder, is treated in the same manner, and the gun is then pointed and fired. The loading, elevating, and pointing are all performed by the aid of machinery, and it being very powerful, works rapidly, bringing up the shot and powder,



PROMENADE DECK.

MONARCHS OF THE SEA.

Chats About some Great Ships.

A COUPLE OF OCEAN GREYHOUNDS; AND SOMETHING ABOUT STOWAWAYS.

"YES, sir; the vessels of the Inman Company were taken over by the American Line in 1886, and in 1892 the contract was signed with the United States Government for the conveyance of mails between Southampton and New York."

"Then these twin greyhounds, *Paris* and *New York*, are now American vessels?"

"Yes, sir; and armed cruisers, to boot. In the spring of 1893, we dropped the words "*City of*" out of the names of the steamers. The "*Cities*" fell at one blow of the Eagle's wings, and now we sail under the Stars and Stripes."

"These two ships are as nearly as possible alike, I think?"

"Twins, sir, we call them. I can give you the dimensions. They are both 10,498 tons, 560 feet in extreme length, and 63 feet beam. They are built of steel, 43 feet deep, have twin screws, separate sets of machinery, about 20,000 horse-power, can travel over 20 knots, or, say, 24 miles an hour. There it is! Would you like to look over the ship?"

"I should very much," was the reply; and in a few minutes we stood in the magnificent dining-saloon, forward, on the saloon deck.

"This room, you see, extends right across the deck house," said our friend. "Its roof is arched, you perceive, and it is carried up through two decks and a half—twenty feet. That's just palatial! How wide is it? Well, the span of the arch is 25 feet, and the length 52 feet!"

"Surprising in a steamer! That's what most people say; and when you see this saloon lighted by electricity, beaming with glass and plate, and full of passengers, you think you're in fairy-land. Yes, sir, four hundred ladies and gentlemen can dine in comfort and at the same time on board these steamers, and you believe that no hotel ashore can beat us, anyway. The saloon is beautifully decorated by special artists, and here, all around, you see the sea-ladies, mermaids, dolphins, and so on. Those little alcoves are for private parties. Cosy! Yes, sir."

We then pass upstairs into the drawing-room, but as we traverse the saloon, our friend remarks, as he indicates an oriel window built under the stained-glass roof of the hall, and the organ-loft opposite:

"That window is our Sunday

possible. The side-windows look out upon the promenade deck, and there is a central sky-light. It is scarcely necessary to remark that American authors are well-represented in this well-supplied library.

"Here's the smoking-room. It can hold 130 smokers—just the same as the *Paris*. The panels are American walnut, and scarlet hide is the upholstery medium. Yes; there is a bar yonder, so you can order what you please.

"The cabins! Ah! these are rather a speciality in our line. We aim at comfort and unity of families. It's a pleasant thing to accommodate a party, and they don't feel strange. Consequently they're a happy family. We have fourteen suites of apartments, containing bed-room, sitting-room, private lavatory, and bath. There are single and double berths in the sleeping apartment, which are closed up in the day-time. Yes; I agree with you; it is sumptuous. One little fellow once called it 'scrumptious,' and he wasn't far out!"

On the saloon deck and upper deck the first-class passengers are generally accommodated, and are situated in the three water-tight compartments in the centre of the ship. Two compartments abaft contain the second-class passengers, the steerage and cargo being at each end.

"How much space have we available? Well, now,

pulpit. We have fine services here, and such music as you don't often hear elsewhere. Madame Patti sang here once for a charity—the only time she has ever sung at sea."

From the grand staircase, we reach the handsome drawing-room, with its deeply-pannelled ceiling, and luxurious furniture and piano. The library, on the after-side of the stairway hall, is quaintly constructed in the form of an hour-glass, so as to gain as much light, and to occupy as little deck-room as

there are one million cubic feet on each of these steamers. Four hundred thousand feet are allotted to the cabin passengers, and about three hundred thousand to steerage and cargo. The Inman line was the first to carry steerage passengers, and we keep up the traditions.

"This is the promenade deck," he continued, as we stepped out—"one hundred and ninety yards long, perfectly clear, eighteen feet wide on either side of the deck-houses. Oh, it's sheltered enough. The sea can't often break over, and there's an awning deck. Look here, you see we divide it so that some may sit behind the rails and read, or work and chat; in the outer line are the promenaders; and thus you have all the advantages of Hyde Park, with a lovely view and pure air."

The second-class cabins and saloon we found aft, where they can use the promenade deck, and where they have their own smoking apartment. A good deal of fun is enjoyed here, and the deck is often turned into a ball-room floor.

"This is the kitchen," said our personal conductor, after we had examined the excellent second-class accommodation.

Below the grand saloon on the main deck the culinary department, or galley, is a feature. It is perfectly shut in, encased in steel, and ventilates into the three enormous chimneys, or "smoke-stacks," so no one can be in any way incommoded by any odours, or even by the sight of the kitchen. Hydraulic lifts deposit the numerous dishes in the large pantries, and thence they are carried by the attendants to the various saloons.

"What a number of hands you must have," I remarked.

"Of course; so many hundreds of passengers must be attended to at meals—on deck, in cabin. Then there are the executive officers and men—some three hundred and eighty in all. Oh, yes, we have a few on board; sometimes more than we want."

"What do you mean? Extra passengers?"

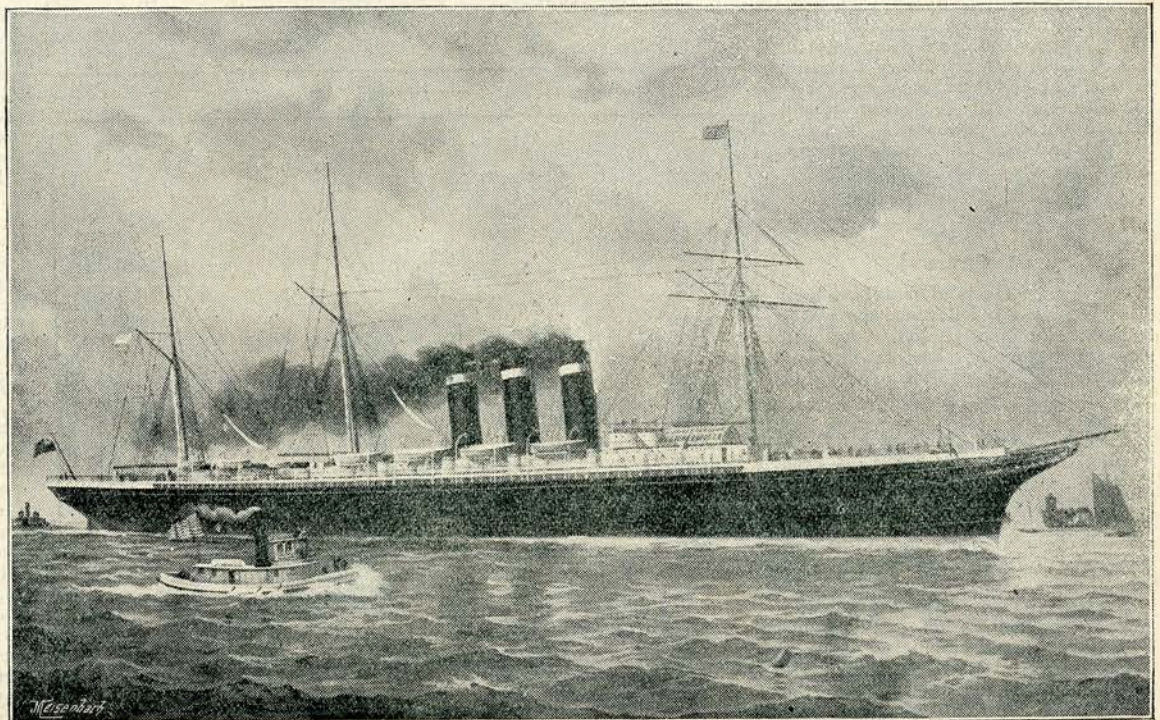
"Aye, stowaways. These Atlantic ferry-boats often get an additional hand aboard."

"But how do they manage to secrete themselves? I wonder they are not immediately detected."

"Well, you wouldn't think so if you came aboard at the last hour. The bustle is confusing, and a chap may rush aboard and dive into the steerage, or into the cargo-hold, or even hide amid the machinery. He isn't necessarily a ragged tramp; he may be decently dressed, or in sailor's togs, or what not. Who has time to pull all the loafers to pieces?"

"But if you find him, what do you do? Supposing he is on board?"

"He has not much difficulty in getting on board some boats—not on our line though. Perhaps he was employed in a ship, or is a friend of someone. So he slips down. If he is turned up before the pilot quits, the matter is easy enough. The miserable creature—by this time half starved, dirty, and



AN ATLANTIC GREYHOUND: THE "PARIS."

dishevelled—is transferred to the pilot-cutter, or tug, and sent ashore."

"If not, he is landed in America?" I suggested.

"Not he! We can't do that. Why, if a stowaway is found out he cannot be set ashore in America. They must be detained by the captain. The skipper who has brought him out must also carry him home, and this is, of course, an expense, for the fellow can't starve exactly."

"What is done, then?" I asked. "Is he punished?"

"Yes; he's made to work pretty hard for his meals. He has not much time to write home, you may be sure. If the case is a bad one, the fellow is handed over to the police on arrival in England again. It becomes a serious item in the course of time. One captain was more than two hundred pounds out of pocket by stowaways in his time."

"Does any harm ever come to them? Do they all turn up?"

"Sometimes they run the risk of starvation in the hold, or get half-suffocated amid the cargo. One skipper of my acquaintance had heard curious noises in the ship, and some silly people on board believed the vessel was haunted. The captain didn't take any particular notice, until one night he calls his first officer and tells him about the noises. 'Let's look among the coals,' he says, 'for I believe there's something scratching below there.'

"The first officer goes down and searches in the bunkers, when, sure enough, he found a man. The poor chap had been shouting and scratching to be let out, but had not been heard till then."

"Horrible!" I muttered.

"Well, it wasn't exactly pleasant; but when the stowaways come up and are fed, then they have to work! There's many a little job in cleaning decks, scrubbing, and brass polishing, which the stowaway can do—and the men take precious good care that he does it! They 'fetch' and 'carry' him more than a little, and the captain lets them worry him. But I've known a captain save the life of one of those frauds, though, as a rule, they get 'toko for yam'; in other words, have a warm time of it."

"But why did the captain save the life of the stowaway?"

"Because the vessel was wrecked, and the fellow couldn't swim. The captain had secured a life-belt, but he could swim, so he gave it up to the stowaway, who came overboard as badly off as he had come aboard. They were picked up. This, I'm bound to say, is the only time I've heard of a captain rescuing one of those rascals."

"Thanks very much for your attention. One question more: Are you building any new greyhounds?"

"Why, yes! Two new vessels, to be named *St. Louis* and *St. Paul*, after our cities. They will be about 11,000 tons, a little larger than the *New York* and the *Paris*, with 20,000 horse-power engines, and everything in machinery duplicate, so that no break-down can occur. The *St. Louis* was launched in November, and will carry 1,300 passengers!"

"The Red Star Line, from Antwerp, is your business also?"

"Yes. Must you go? Well, good-bye!"

Of Course!

MANY strange effects of frost have been described, but the following, the writer believes, is unique. A little boy, aged eleven, was asked at school one morning during the recent winter to repeat a lesson.

The lad made visible efforts to say something, but was unable to get out a word. As he was noted for his good memory, the teacher, surprised and alarmed, sent for the nearest doctor, who, after hearing the particulars, as if prompted by a lucky inspiration, dragged the boy to the side of the fire, and made him sit down.

He had not been there two minutes when he opened his lips and said his lesson without a mistake.

The doctor explained the mystery. He said the boy suffered from water on the brain, and on the way to school his ideas had been frozen.

Didn't Want His Company.

GENERAL MELIKOFF, the famous chief of the Russian police, had been given unbounded power to act against the Nihilists.

Now, Melikoff had discovered that one of the leading Nihilist chiefs was in the habit of frequently visiting Count Tolstoi, the novelist, and one day he went out to Tolstoi's country house.

Before the visitor had announced himself, Tolstoi recognised him and said—

"You are Loris Melikoff, chief of the police. Do you come to see me officially, or as a private individual? If you come officially, here are my keys. Search; open everything. You are free."

"I come not officially," replied Melikoff.

"Very good," answered Tolstoi; and calling two servants, he said to them, "Throw this man out of the house!"

And the great chief of police was thrown out.

Outwitted

IN a large factory in which were employed several hundred persons, one of the workmen, in wielding his hammer, carelessly allowed it to slip from his hand. It flew half-way across the room, and the handle struck a fellow workman in the left eye. The man averred that his eye was blinded by the blow, although a careful examination failed to reveal any injury, there being not a scratch visible.

He brought a suit in the law courts for compensation for the loss of half of his eyesight, and refused

all offers of compromise. Under the law the owner of the factory was responsible for an injury resulting from an accident of this kind.

The day of the trial arrived, and in open court an eminent oculist, retained by the defence, examined the alleged injured member, and gave it as his opinion that it was as good as the right eye.

Upon the plaintiff's loud protest of his inability to see with his left eye, the oculist proved him a perjurer, and satisfied the Court and jury of the falsity of his claim. He did it simply by knowing that the colours green and red combined make black.

He prepared a black card, on which a few words were written in green ink. Then the plaintiff was ordered to put on a pair of spectacles with two different glasses, the one for the right eye being red, and the one for the left eye consisting of ordinary glass. Then the card was handed him, and he was ordered to read the writing on it.

This he did without hesitation, and the cheat was at once exposed. The sound right eye, fitted with the red glass, was unable to distinguish the green writing on the black surface of the card, while the left eye, which he pretended was sightless, was the one with which the reading had to be done.

Hardly Profitable.

It is related that a historian and journalist of repute resolved in the autumn of his life that he would set up as a retail bookseller. He proposed to deal chiefly in mediæval literature, in which he was profoundly versed.

This venture was scarcely successful.

A customer entered his shop one day and asked for a particular book, as marked in the catalogue.

"I had really no idea it was there," meditatively remarked the bookworm, as he ascended a ladder to a very high shelf, and pulled out a shabby little tome.

Then he remained about five-and-twenty minutes on the ladder absorbed in the perusal of the volume, when the customer, growing impatient, began to rap on the counter with his stick. Thereupon the bookseller came down the ladder.

"If you think," he remarked, with calm severity, to the intending purchaser, "that any considerations of vile dress will induce me to part with this rare and precious little volume, you are mistaken. It is like your impudence. Be off with you at once!"

Observant

A TAME monkey was given, not long ago, a lump of sugar inside a corked bottle. The monkey was of an inquiring mind, and it nearly killed him.

Sometimes, in an impulse of disgust, he would throw the bottle away out of his own reach, and then be distracted until it was given back to him. At other times he would sit with a countenance of the most intense dejection, contemplating the bottled sugar, and then, as if pulling himself together for another effort at solution, would sternly take up the problem afresh and gaze into the bottle.

He would tilt it up one way and try to drink the sugar out of the neck, and then, suddenly reversing it, try to catch it as it fell out at the bottom. Under the impression that he could capture the sugar by surprise, he kept rasping his teeth against the glass in futile bites, and, warming to the pursuit of the revolving lump, used to tie himself into regular knots round the bottle.

Fits of the most ludicrous melancholy would alternate with spasms of delight as a new idea seemed to suggest itself, followed by fresh series of experiments.

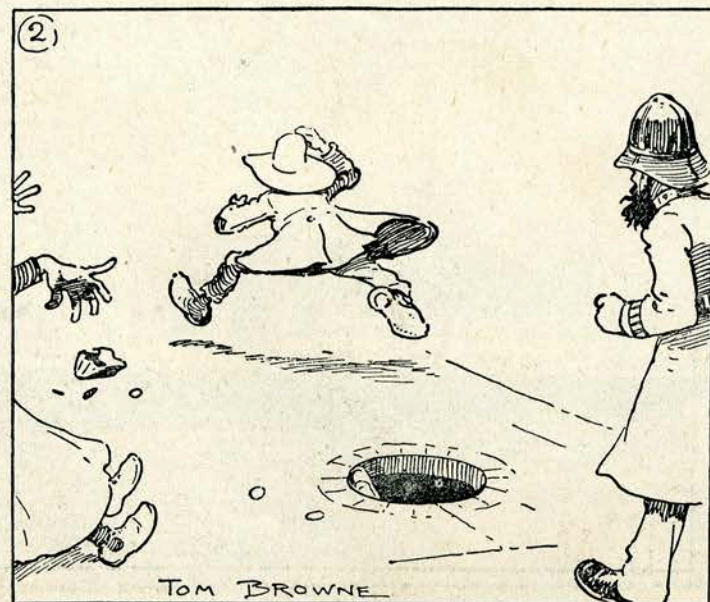
Nothing availed, however, until one day light was shed upon the problem by a jug containing flowers falling from the table with a crash, and the fruit rolling about in all directions.

His monkeyship contemplated the catastrophe, and reasoned upon it with the intelligence of a Humboldt. Then, lifting the bottle high in his claws, he brought it down upon the floor with a tremendous noise, smashing the glass into fragments, after which he calmly transferred the sugar to his mouth and munched it with much satisfaction.

In a Hole—and Out.

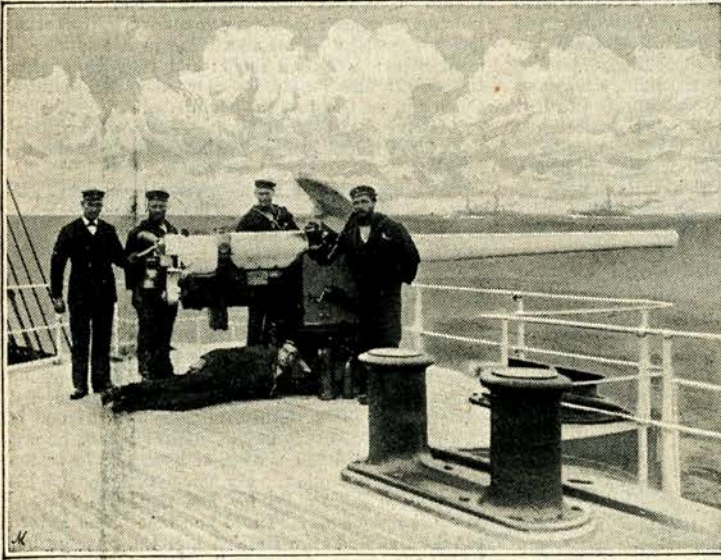


"Pity the poor—"



TOM BROWNE

"Cripple!!!"



A GUN ON BOARD THE "TEUTONIC."

MONARCHS OF THE SEA.

Chats About Some Great Ships.

AN ARMED CRUISER.

THE term "cruiser" is generally associated with the Royal Navy, but of late years many of our fastest and finest mail steamers—such as the new Cunarders, the P. and O. Company's ships, and others—have been constructed in a special manner, according to Admiralty requirements. Of these armed ships the *Teutonic*, of the White Star fleet, was the first, and we shall find much to interest us on board. Here is what an official told us:—

"Armed! Why of course we can be armed. Look at that gun. There are eight of them on the upper and promenade decks.—Armstrongs. The *Teutonic* is a real war-ship, and, if you remember, was specially inspected by the German Emperor when he was at the Naval Review at Spithead in 1889. She is fitted to carry twelve 4.7-inch quick-firing guns, 47 pounders, with a range of four miles and a half.

"Breech-loaders? Yes. We don't always carry them. We had four on board when the German Emperor inspected the ship—not since. We can fire twelve shots a minute, costing about £15 in that time, and the guns cost £6,000 each. They have steel shields and oil-buffer recoil gear.

"But we have had cruisers before, you say? Certainly; but not such fighting-ships as our modern armed cruisers. No, sir. The White Star Line possess in their magnificent steamers, *Teutonic* and *Majestic*, warships of 9,984 tons, gross, and 18,000 horse-power. They measure 582 feet in length, 57.8 in beam, and are each 39.4 feet deep.

"What constitutes an armed cruiser? Well, opinions may differ, perhaps. Our idea of an armed mercantile cruiser is a ship that carries powerful guns and can steam to Nova Scotia in five days, or Hong Kong in about one-and-twenty. A ship which can carry two thousand troops (infantry), or one thousand cavalry, at a time is also of considerable value as a transport. The engines are below the water-line, and so out of reach of shot; the boilers and the rudder are specially protected. The hull is, of course, of steel, and we have many bulkheads and water-tight compartments, and, above all, very powerful engines, which send us along at twenty-four miles an hour. That's my idea of a cruiser!

"Interfere with the passenger accommodation? Not a bit. Mr. Ismay, in 1878, made the suggestion to the Government that fast Atlantic liners might be adopted as

cruisers, but the Admiralty "didn't see it." However, in 1886 the suggestion was renewed and accepted. This ship was laid down, and was the first real armed merchant cruiser. When war comes the vessel will be transferred to the Government and turned inside out, and armed."

"But the present Admiralty requirements have not affected the comforts of the passengers?"

"Certainly not. The company was quite as determined as the Admiralty, and retained all the luxury and space they required, while carrying out the defences of the ship. We venture to think that no company's vessels can beat the *White Star* in comfort and accommo-

dation, and not many hours in speed, either. Every room in the ship has been perfected under the supervision of specialists, and, though I say it, cost has never hindered us. We didn't even have a contract with Messrs. Harland for the building of the ship. We gave them a free hand, for we knew they wouldn't pick our pockets.

"You've seen some of the other liners, I suppose?" (We confessed that we had.) "Well, then, I think you'll say that we are as fine and comfortable as any, at least. This ship has been compared to a club, and that's about as good a description as you can have. It's just downright 'cosy.' A floating hotel is all very well, but for ease and quiet, without hotel bustle and rush, give me the *Teutonic* Floating, Flying Club. The presence of the engines is almost unnoticed, and the bulkheads and ribs, transverse and longitudinal, keep the ship so taut that vibration is hardly perceptible.

"You want to study the steerage passenger? There is no difficulty about that. But do not overlook the ease and the pleasant surroundings of the first and second; though we take special care of our steerage and provide them with air-space more than is deemed necessary, while the general arrangements are quite 'up to date.' We are also able to please our patrons of all classes by the steadiness of the ship, the perfect ventilation, the ample light and deck-space, as well

as the larger saloons, state-rooms, and bedrooms."

"You treat your steerage passengers well, I perceive."

"We should be ungrateful if we didn't. They are our very good friends, and we shelter and feed them as well as we can. 'Deck passengers' are not in our ships unsheltered. Look you, here; see that upper-deck space? That's reserved for the steerage passengers, and the covered row yonder is for them, too. One-sixth of a mile is at their disposal. Now come down and see the cabins and so on."

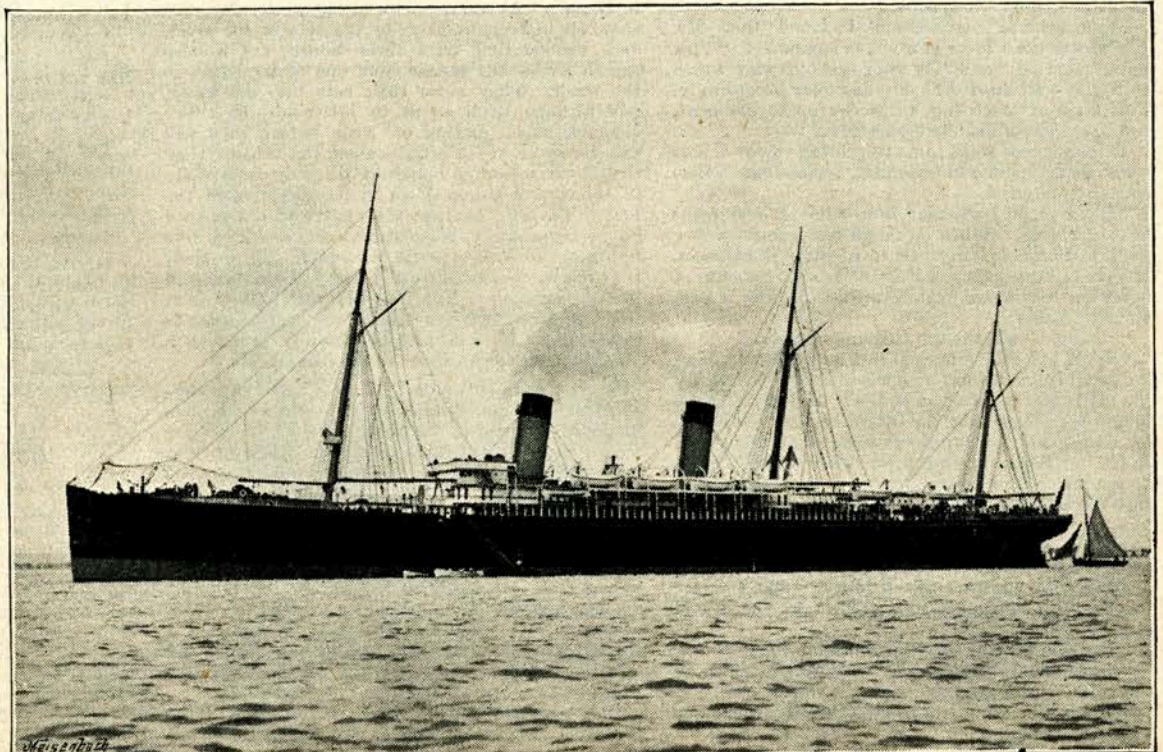
We descended by an excellent staircase, whereon no one need lose their footing, to the ample space 'tween decks, which is appropriated by the steerage passenger, who, by the way, is not in the after part, but forward. Some of them—the single women—are accommodated, under the care of a motherly stewardess, at the extreme aft end; and a smoking-room has been provided forward, where the men may enjoy their pipes in comfort. Larger rooms attracted our attention, though.

"Yes; these are 'family rooms.' We wish to equalise matters as much as possible, and a kind of private or steerage state room is much appreciated. It's an old institution of ours. Electric light, of course; all sorts of conveniences in perfect order, and placed so as to be at hand for the various passengers. I don't think we have neglected the steerage."

"No, indeed," is my reply, as we once more moved aft and looked over the first-class deck-cabins, filled with double bedsteads and all the furniture one is accustomed to associate with a modern house; where the temperature and lights are under control, to cool, to warm, to illuminate or darken, as pleases the occupants thus placed amidships. One feature of the ordinary sleeping apartment deserves special mention. No berth in the room is above another in that room. The two-berthed cabins are arranged so that, though each contains an upper and lower berth, the lower one is overlapped by the upper berth in the next compartment, and so on. These are "inner-rooms," lighted by sky-lights.

These curious traits and features of the *White Star* cruiser are carefully treasured, and then a few questions were put to a person who had made the trip in the steerage across the "pond," as he called the Atlantic, for a couple of pounds sterling.

"Well, sir, you couldn't expect first-class, but I must say, if you're a fair sailor and can take your food, you'll enjoy yourself. There is always plenty to eat at stated times, and you can have fresh air and exercise. The berths are comfortable, with pillow, mattress, and blanket; and the sleeping-rooms are sometimes crowded. Well, if people are ill it isn't all pleasure—wouldn't be so aft, either. But unless someone tumbles out, or is taken bad particular, it's fair enough and lively. In one ship I was in, going to Philadelphia, a man fell out on top of another,



THE "TEUTONIC."

who roared out 'Murder!' until the passengers thought the ship was sinking. I don't know why.

"What did we do all the time? Why, nothing generally. It's a fine place for that, I can tell you; and though you're fairly looked after, you're not pampered, you see, so you are not actually hankering for the 'tween decks, though the smoking-room is a blessing, and the food is wholesome. Sometimes your cabin neighbour is not very nice, and then—no fault of the company—your time is not so happy; but if you can sleep at night and bask on deck in the fine weather, it's pleasant enough. We sit out under shelter on the deck, or stroll about in our own place. Then we amuse ourselves with concerts and dancing. There are almost sure to be some musicians in the steerage, and a banjo is handy often; and there are always girls willing to sing and men who think they can. We play cards and games, do a little gamble, and have, like our betters, a pool for the end of the run. Whoever gets the draw of the proper time of arrival—the last hour in—is excited. But I've known a fellow draw three o'clock, and the ship has been brought up at eight minutes past three. So he lost the pool, and the next man—twenty minutes after the hour—got it. Disappointing, wasn't it? Yes; there's always an excitement when we are nearing land."

We sit forward and peer into the distance, while everyone is talking.

"Oh, yes; you don't want any introduction on board, much less in the steerage. It's greatly improved; the berths, cabins, and arrangements of this company are as good as I've heard of. Competition keeps them up, I suppose, though the White Star has always been good at it.

"What's that ship? That's the *Gothic*, the New Zealand dead meat vessel, and cargo ship. She can carry 75,000 carcasses of mutton. The *Ionic*, *Doric*, and *Coptic* are in the same business, in the Shaw Saville and Albion line, and any one of them can carry thirty-five to forty thousand carcasses of mutton, frozen."

Of the splendidly furnished dining-saloon, the pretty library, and luxurious smoking-rooms no more need be said than that they are splendid in area and decoration. We have not mentioned the ladies' drawing-room, for the same reason that Earl Burreigh, in the *Critic*, did not see the approaching Spanish fleet. "It is not yet in sight," said he. So with the drawing-room, which has been eliminated from the design, and ladies find shelter in the library, where youthful children do not continually penetrate. But the couches, and easy chairs, and cosy corners are specially suited to the fair sex, while the stained-glass windows at once protect them from too prying eyes, and tone the pallid cheek to the hues of health.

Such is a brief—a necessarily brief—description of the *Teutonic*, and equally of the *Majestic*, twin armed cruisers—furnished like a royal yacht, ready as a man-of-war, swift as the fleetest of Atlantic greyhounds, and graceful as a swan upon the water.

With reference to Admiralty cruisers, it may be interesting to note that in 1886, when there was a war scare, Government chartered a number of steamers, such as the *America*, *Oregon*, *Umbria*, *Arizona*, *Lusitania*, *Pembroke Castle*, *Mexican*, *Alaska*, and others, at the rate of, on an average, £1 per ton per month, or £3,000 to £5,000 a month, if the State paid the crew. If the owners found the crew, the charge was £7,000 a month. But these cruisers were not the equal of the armed cruiser of to-day, as represented by the *Teutonic* and the *Majestic*.

Strange and Beautiful.

In midsummer a strange sight may be seen in Central America. This is the migration of butterflies across the Isthmus of Panama.

About the end of June a few of the insects begin to go out to sea, but their numbers increase daily until, about a fortnight later, they form a cloud dense enough to obscure the sky.

The spectacle is one of singular beauty. When the sun shines on the vast mass of fluttering wings, the play of golden green colours is really wonderful.

Should the insects be driven eastward by a rising wind, they can be caught by the handful.

Swallows and fly-catchers keep up the chase for miles. Where these butterflies come from and whither they go, no one knows.

"WELL, Mr. Robinson, and how does your son get on with the violin?"

"Astonishingly; there were fourteen of us playing together last night, and he took the lead!"

"Capital—admirable!"

"Yes; and he kept it so well, sir, that none of us could catch him!"

HOW TROOPER BENDALL REPAID A DEBT.

And Saved a Comrade's Life.



PRISONERS

and escort, a t t e n t i o n ! Carry s w o r d s ! R i g h t w h e e l ! T e n p a c e s q u i c k m a r c h ! H a l t ! F r o n t ! S l o p e s w o r d s ! T r o o p e r s B e n d a l l a n d R u s s e l , s i r . "

"What's the charge a g a i n s t t h e s e m e n , c a p t a i n ? "

asked the colonel, turning towards the adjutant of H.M. —th Dragoon Guards as the two men, together with their escort, halted, facing him.

Referring to the charge-sheet or crime-form (as it is called in the Army) the adjutant read out:

"No. 4,491, Trooper Bendall, and 5,573, Trooper Russel, of B. Troop, found fighting in their barrack-room at 10.15 p.m. last night. Evidence: Corporal Downs and Corporal Henty."

"State your evidence, Corporal Downs," said the colonel.

"Sir, last night, about 10.15 p.m., I entered the prisoners' room and found them both fighting, and, on calling Corporal Henty's attention to the fact, I placed them both in the guardroom."

"Now let's hear yours, Corporal Henty."

Henty corroborated Corporal Downs' statement.

"What have you got to say, Trooper Russel, in your defence?" asked the colonel.

"Nothing, sir, except that Trooper Bendall was giving me a lot of abuse, and so I started to give him a licking."

"And you, Trooper Bendall, is this man's assertion correct?"

"No, sir; it is false. For some time past this man with whom I was fighting last night has done everything in his power to make my life as miserable as he can. He appears to consider it a personal affront because I don't choose to associate with him and spend my money in the canteen drinking. He is continually annoying and insulting me; and although I have not on any previous occasion taken any notice of his remarks, last night he seemed determined to pick a quarrel with me, and as he passed some very offensive remarks about my relatives I lost my temper, and regret to say I struck the first blow."

The colonel turned to the sergeant-major and said—

"What sort of a character is Trooper Russel, sergeant-major?"

"Very indifferent, sir; he is always creating disturbances," replied the non-commissioned officer addressed.

"It appears very plain to me," said the colonel, addressing Russel in a very severe tone of voice, "that you have deliberately laid yourself out to make this young fellow's life about as unhappy as you can, and apparently solely because he declines to follow your own very bad example; but understand this, I will not have such conduct in my regiment. You will therefore be imprisoned with hard labour for 168 hours. And you, Trooper Bendall, in future, if your comrades treat you badly, report the fact to your captain, and don't attempt to take the law into your own hands again. This time I shall only caution you, but don't come before me again for such a crime. That will do, sergeant-major; march them out."

Some of the better-hearted and more thoughtful soldiers openly confessed their opinion that Russel had only got his just deserts, "for," remarked one of these latter, "the way he bullies and insults that poor young rooky" (meaning Bendall) "is a shame, and I, for one, was jolly glad to see the youngster slogging into him."

When Russel had completed his term of imprisonment, and once more joined his comrades in the barrack room, he did not attempt to openly bully Bendall as of yore.

But one fact he noticed about his enemy, and did not

fail to remark about it to the other soldiers, and that was, that every pay-day, as soon as ever he had received his week's pittance, Bendall invariably proceeded straight way with it to the camp post office, and never appeared to have any money by him next day.

Now if there is one thing Tommy Atkins detests more than another it is closetedness, and fully aware of this, Russel one night remarked, as he observed Bendall wending his way as usual towards the post office:

"There goes goody-goody, chaps, down to the post office to bank his money again. Did ever any of you fellows see such a miser in all your lives before?"

"Yes," said another. "I've noticed the same thing myself about him on pay-nights. He's about as mean a skunk as I ever heard of."

When young Bendall returned from post, Russel, emboldened by his comrade's dislike to the recruit's banking proclivities, said to him with a sneer—

"Another five shillings in the bank, have you, goody? It's a pity you haven't got the heart to spend some of your pay like a soldier, instead of saving it up like a kid with a penny tin money box."

Bendall flushed up angrily, as he answered, "It's a pity you can't mind your own business. What I do with my money can't concern you in any way, but suffice it to say I don't bank it."

"A likely tale," laughed his tormentor. "I suppose you are sending it to a charitable institution?"

Not deigning to reply, but biting his lips with vexation, Bendall went over to his bed-cot, and commenced quietly reading to himself.

Suddenly the door was flung open with a bang, and the orderly corporal, bursting with excitement, stalked into the room, and said—

"You fellows, I've got some news for you that will make you open your eyes a bit. What do you think it is, now, guess?"

"Softy's mammy has come to buy him out, perhaps," said Russel, unable to resist an opportunity of wounding his enemy's feelings.

"You shut up, or I'll put you somewhere else," said the corporal sharply to him, and then went on—

"You fellows won't guess what it is in a twelve-month, so I'll tell you without more ado. We're all for active service in Egypt at once."

"What?"

"It's a fact, as you'll very soon find out. We have got to sail in H.M.S. *Crocodile* next Monday morning, and we shall have all our work cut out to get properly equipped for foreign service by that time, I can assure you."

"Hurrah! Hurrah! We shall be able to get a medal after all, before we leave the army," shouted the delighted and excited soldiers.

"I say, chaps, look at Softy; I do believe he's funking at the thought of war," said Russel, pointing at Bendall; and, indeed, it did seem, by the colour of his face, that the young recruit was greatly troubled at the news; and yet, although he was very pale, it did not look altogether like fear, that expression on his face, but something of sorrow seemed blended with it.

"Look here, Russel, I shan't tell you again about getting on to that youngster's collar so much," said the corporal angrily; and, scowling surlily at the inoffensive recruit, and vowing vengeance on him at the first opportunity, the bully walked out of the room.

The next week was one of bustle and excitement throughout the camp—for, besides the —th Dragoons, several more regiments were going out—and our brave lads, working like niggers, seemed as happy and contented at the prospect before them as if they were going out for a long picnic instead of to a sanguinary war.

At length, with bands playing, colours flying, and hats waving, the great transport troopship *Crocodile* steamed out of Portsmouth harbour with our gallant troops on board, leaving behind them many a weeping wife, mother, and sweetheart.

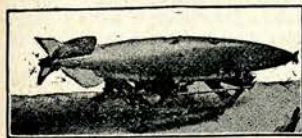
To one who has not experienced it, the discomfort of a long voyage in a troopship cannot be imagined, and if you add to this the knowledge that you are leaving friends and home to go and fight a foreign foe, and that perchance you will never live to return to those who so anxiously await you, some idea of our poor fellows' feelings can be imagined when they had been a fortnight on the water. Sea-sick, with but coarse fare to regale themselves, and packed together more like sardines than human beings, their feelings and situation were far from being enviable; and thus it was that every soldier was eager for the journey to finish and the excitement of battle to begin.

During the voyage Bendall, who had not been attacked at all with sea-sickness, had earned the golden opinions of his comrades by assiduously

MONARCHS OF THE SEA.

Chats About Some Great Ships.

TORPEDOES AND TORPEDO-BOATS.



A WHITEHEAD TORPEDO.

ALTHOUGH these small craft can scarcely be termed Monarchs of the Sea, there is no doubt that they assist very materially in the Ruling of the

Waves which is supposed to be the time-honoured occupation of Britannia. Even as the Black Prince, although quite a youth at the time, won the Battle of Cressy, so may torpedo-boats—although small and insignificant in appearance—decide the fate of navies. In the late Chilian and Chino-Japanese wars the torpedo played a very important part.

Suppose we penetrate into the dockyard at Portsmouth. There you will see in store a number of the cigar-shaped, wicked-looking torpedoes, very much the shape of the sleeve-links now so popular. A courteous official directs our attention to them.

"There they are, harmless enough now. But they are deadly engines! Not always like that? Well, the first 'torpedoes' were really what are called 'Mines,' intended to explode when struck by a ship. This kind were used in the Russian and American wars years ago, and when a vessel struck against one of these sunken mines she was supposed to blow up. But they were uncertain in their effects, and another system—a more effective one—was tried.

"What was it? It was known as the spar-torpedo, because the destructive machine was fixed at the end of a spar and carried in a fast-steaming launch. The torpedo was by this means thrust, or rammed, against the side of the ship intended to be destroyed.

"Risky? Yes, pretty much so. There was a fair chance of blowing up the launch as well as the man-o'-war. Sauce for the goose became sauce for the gander, and the engineer was sometimes 'hoist with his own petard.' So the spar-torpedo went out of fashion. The Whitehead ('fish') torpedo is now in use. Look at it. Here, look here!"

I looked as bidden, and my guide proceeded.

"You see this is the weapon. It is made of steel or bronze, and varies from a foot or so to a foot and a half in diameter; and from ten to sixteen and a half feet in length. These are medium, but we have some eighteen inches in diameter.

"The charge? Why, gun-cotton, from, perhaps, 40 to 200 pounds. See the head? There's an exploder or pistol there, you see, in the snout—not exactly a ring in its nose either. But when the torpedo comes into collision with the doomed vessel that 'pistol' is driven in, and coming into violent contact with a charge of mercury-fulminate, it explodes the charge here, and then the deed is done. Simple, you think? Yes, when you know all about it.

"You suppose the blow—the impact—is severe? Yes; pretty fair. Some of our big fellows travel at thirty knots an hour for nearly half a mile, and partly under water, too. If the boat can get nearer all the better. The torpedo rushes in, and, unless it can be destroyed or stopped, there may be an end to the battle-ship, cruiser, or other vessel aimed at."

"What is the motive power, then?"

"Compressed air. Behind the charge is the air-chamber, which occupies a considerable space here, behind the gills, you may say. This charge of air is compressed to a pressure of ninety atmospheres. Well, if you multiply the ordinary pressure of the air, which we all support, ninety times, you will have a powerful agent when it is gradually released. Thus, the ordinary pressure being (nearly) fifteen pounds on the square inch, the air is compressed until its force equals something more than 1,400 lbs. on the square inch.

"How is this managed? By air-pumps, and the propellers are worked automatically by this air. There are twin-screws, and by means of machinery in what is termed a 'balance-chamber' the depth to which the torpedo shall sink is arranged. The rudders and 'fins' tend to maintain the direction and the even sailing of the machine, which is expelled from the tube by a small charge of powder.

"How does it proceed? Why, the act of firing sets the air into the machinery, and the screws revolve, propelling the torpedo at a great pace. If it fails to strike, it sinks and is lost. Of course, in

practice it floats; but loaded torpedoes are not now used during trials."

"Then one torpedo is sufficient to sink a ship?"

"Possibly. In ten minutes! As a matter of fact, a Chilian ironclad was sunk thus; and quite lately, in Chinese waters, the torpedo has been active. It is doubtful if it would sink a modern, sub-divided ship."

"But surely there is a method of warding off these attacks?"

"Yes; when we invent an engine of destruction, we must find a protection against it. When vessels are at anchor they hang out torpedo-nets, or 'crinolines,' round the hull. These are wire nets, remember, the meshes being about three inches. Steel? Yes. They are rigged out by means of booms just above the water, and, perhaps, sixteen to



AT WORK WITH A SEARCHLIGHT.

twenty feet below the surface; so the torpedo is caught.

"Do we see the boats first? Sometimes. They lie low and travel at a great speed. We may discover them by the search-light, a very powerful electric light, set in a hood (as in the illustration). See? (We use electricity for firing guns and for exploding the powder which discharges torpedoes too.) A powerful electric arc lamp is furnished with a projector, or 'drum,' the rays of the lamp being concentrated by a concave mirror, and by two axes any position is given to the apparatus. If we suppose the arc lamp is exactly opposite the mirror-

focus, the projector sends out parallel beams, otherwise it may be made 'convergent,' and a brilliant flood of light will illuminate the sea or the sky. We turn it upon the water, and sweep it from side to side, so that every boat or other craft is betrayed. The light is useful for nearly two miles.

"When we see them—the torpedo-boats you mean? Oh, we bring the quick-firing guns to bear, and 'kill' the torpedo and the boat. There are also torpedo-boat destroyers—swift craft, which are a match for any adversary. They are well armed, and can beat a torpedo-boat, rapid as they are.

"Some torpedo-boats are carried on board the war ships, certainly. These are small harbour craft. One of the latest torpedo-boat-catchers is the *Swordfish*, with a displacement of 264 tons—the largest vessel of her class. She carries one 12-pounder gun, and five 6-pounder quick-firing guns, with two torpedo-tubes, which are practically guns of their kind. Another new vessel is the *Bruiser*, a sister of the *Toxer*. These vessels can steam thirty miles an hour. The *Harock* and *Daring* are well-known specimens. There are also torpedo-gunboats, such as the *Rattlesnake*, *Grasshopper*, and *Speedy*, which vary from 550 to 1,000 tons. The torpedo-boat 'destroyers' are fitted with triple-expansion engines and twin screws.

"The *Speedy* (of which an illustration is given) is a first-class torpedo gunboat, built and engine by Messrs. Thornycroft, of Chiswick, and is a splendid specimen of her class. She can steam twenty knots an hour, steam being generated in eight water-tube boilers, the special feature of which is the generation of steam from water contained within, instead of outside, a number of tubes lying close together. The *Speedy*, which is the largest 'man-of-war' ever built 'above bridge' (she was constructed at Chiswick), is the first ship to be fitted with the special water-tube boilers. She is 230 feet long, and has a displacement of 810 tons.

"Yes; torpedo-boats are cramped and uncomfortable craft. They roll terribly in a sea-way, and all comfort is sacrificed to usefulness or business. They are built of steel, very thin, very light, low in the water, emit no smoke when steaming; the funnels glow, though, and may betray them. The air-chamber and the apparatus for the torpedo-regulation occupy most of the space.

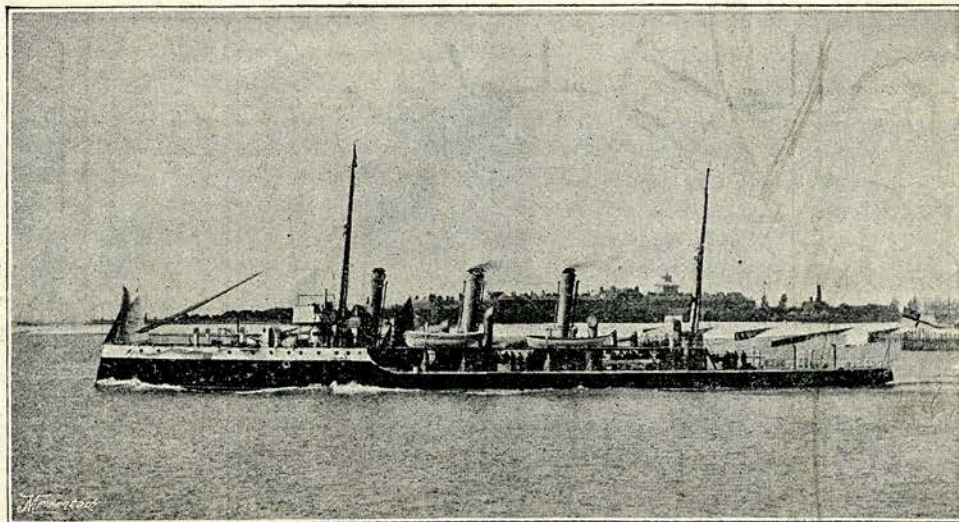
"How many men do they carry? Oh, eight up to twenty, according to size. It isn't bad fun to be in command of a torpedo-boat—one has a change from routine; but the experience is not all rose-coloured if the weather is bad. You are under water, cold at night, and undressing, dressing, and generally washing are impossible feats.

"Food is limited in variety—sardines and ham or tinned soups are usual. One is rolled about, wrapped in waterproof or blanket clothing, known as 'duffle suits,' wet, sleepless, and often sea-sick! Sometimes half the crew are disabled for a while!

"Very unpleasant? Well, if you think much about it, it may be. One must rough it! The torpedoes? Oh, we usually discharge them from the deck if they are self-propelling. They run about three-quarters of a mile through the water. They are discharged like a shot or shell from a gun."

"Then when you attack the enemy?"

"When we do, we shall try it in the dark, keeping all snug until we have managed to creep up within striking distance. Then we shall dash in, full speed,



A TORPEDO GUNBOAT: H.M.S. "SPEEDY."

Photo. Thornycroft.

discharge the projectile, and race away when our business is done. Of course we shall be pelted with shot and shell, and perhaps sunk, blown up, or otherwise destroyed, but we must take our chances. If we surprise the enemy we may succeed. If he derides us, then our chance is small, but it is no use to calculate on board a torpedo-boat! You must go in at once, strike, and trust to pluck and luck! Drive ahead full speed, point the tube, and discharge the weapon, and then—Well, wait and see!”

As I returned alone, I came to the conclusion that torpedo-boats are calculated to try the best energies of our blue-jackets and their officers, who may be said when on board of them to carry their lives in their hands.

HENRY FRITH.

Gratifying a Whim.

THE artist who accompanied George Kennan, the famous traveller, to Siberia, tells an amusing story about an encounter with a party of Tartars, who seemed very curious about the artist's pictures.

As the Tartars were armed to the teeth, the artist thought it best to be amiable, and smiled a broad and propitiatory smile upon the party. Whereupon, the entire party smiled broadly in return and showed great interest in him. He smiled again, more broadly; whereupon, the Tartars came in front of him and began to go through the most extraordinary antics, laughing still.

The artist gathered somehow that he was expected to laugh, too, and proceeded to gratify their evident wish. The more he laughed the more they laughed, and presently several big Tartars came round in front of him and lay down on the ground, rolling and tumbling.

The artist laughed until his jaws almost cracked. The thing finally became a little alarming, and

calling his factotum and interpreter, the artist bade him find out from the head-man of the Tartar party what was the meaning of these most extraordinary antics.

“His excellency,” said the Tartar, in explanation, “smiled upon us, and showed us something which we never saw before—teeth made partly of gold. And as the men of my tribe saw that his golden teeth were only to be seen when he laughed, they took all possible ways to make him laugh, and when they rolled on the ground before him, it was only the better to behold the golden teeth.”

Bathers, Note This!

EVERY boy who has run a mile knows what it is to gain a “second wind,” though he may not be able to explain why one minute he is out of breath and the next feels as if he could run several miles. The explanation is this:—

In ordinary breathing we use only a portion of our lungs, the cells at the extremity not being brought into play. This is the reason why those who are not “in training,” and who try to run for any distance, soon begin to gasp, and unless they are courageous enough to persevere in spite of the choking sensation, are forced to stop; but if they will persevere the choking goes off, and the result is what is known as “second wind.”

When the second wind is fully established, the runner does not become out of breath, but goes on running as long as his legs will carry him.

The fact is that, on starting, the farthest portion of the lungs are choked with air, and the remainder do not supply air enough to meet the increased circulation caused by exercise.

By degrees, however, the neglected cells come into play, and when the entire lung is in working order, the circulation and respiration again balance each other, and the second wind is the result.

Now let the reader repeat his experiment of holding his breath against time; but first let him force out of his lungs every particle of air that he can expel, and then draw as deep a breath as his lungs will hold.

If this be repeated seventy or eighty times, by way of imitation of the whale, the experimenter will find that he can hold his breath for a minute and a half without inconvenience.

Should he be a swimmer, he should always exercise this precaution before “taking a header,” and he will find that he can swim for a considerable distance before he needs to rise for breath.

Well Schooled.

THE young of falcons and hawks are well trained by their parents. From the time they are strong enough to pull at and break up the morsels brought to them, it is one long course of instruction.

The old birds know perfectly well what the young ones will have to do, and they get them fit for doing it as soon as they can. They compel them to take longer flights day after day, and teach them how to stoop—that is, strike at their quarry.

One or the other of the parents will shoot up with a portion of feather, or it may be fur, followed by the young hopefuls. Then the morsel is dropped from the clutch—down they dash for it, and the one that makes the quickest stoop secures the prize before it reaches the ground.

When the old birds think the young can support themselves, off the latter have to go.

This is not a case of choice, but necessity, for they are simply cuffed and buffeted off. So well is this known in the country that it is a common thing to hear a lad say—

“Them 'ere hawks has druv their young uns off.”

FROM FOE TO FRIEND.

Fighting for a Father's Life.

SAN MIGUEL is a small hamlet in Central Venezuela, situated on the north bank of the Orinoco.

During the recent civil war most of its inhabitants were favourable to General Crespo, the leader of the insurgents, and for that reason the dictator, President Villegas Pullida judged it necessary to occupy the place with a small detachment of troops commanded by one of his most devoted adherents, Captain Isidoro Errazuriz, a young man of thirty, who had, however, already distinguished himself during the rebellion.

Captain Errazuriz ruled the town with an iron hand. Each house in the village was guarded by one or more soldiers, while several citizens, without the slightest known provocation, were thrown into the village jail and kept in strict confinement.

Not long after the arrival of the troops, two hunters from the interior, who were visiting the hamlet, incautiously let fall a few words in favour of the Revolutionists. They were promptly arrested as spies of General Crespo, tried by court-martial, and found guilty, as a matter of course, in spite of all evidence to the contrary.

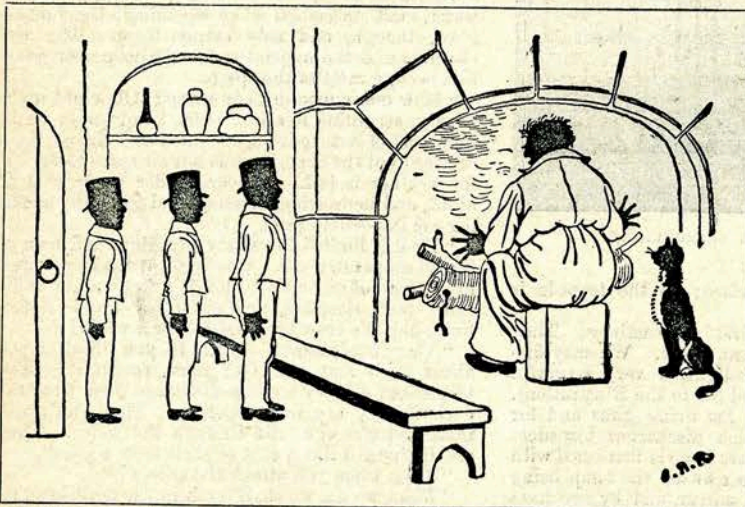
“We must teach these villagers a lesson,” said Captain Errazuriz when the finding was declared. “I will have those spies shot at noon to-morrow.”

The trial took place in the early part of the morning. During the afternoon, the captain, with half a dozen of his men, went on an exploring trip into the forest which lay to the west of the village.

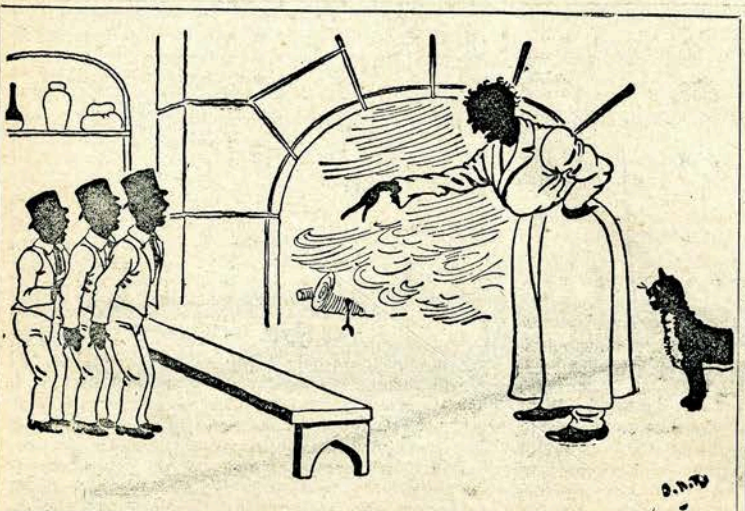
A herd of peccaries were sighted, and the troopers at once went in pursuit of them. Captain Errazuriz singled out a particularly large and sleek-looking tusker, and pressed it so closely that he succeeded in separating it from its companions; but after following it for some time the frightened animal darted into a heavily-wooded marsh, where the captain, with his horse, was unable to follow.

Captain Errazuriz endeavoured to retrace his footsteps, but, after travelling blindly for a time, he suddenly realised that he was lost.

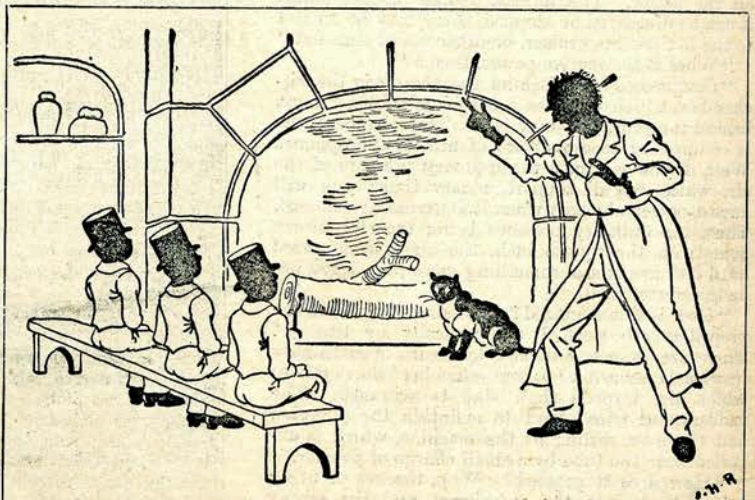
Froze their Young Blood.



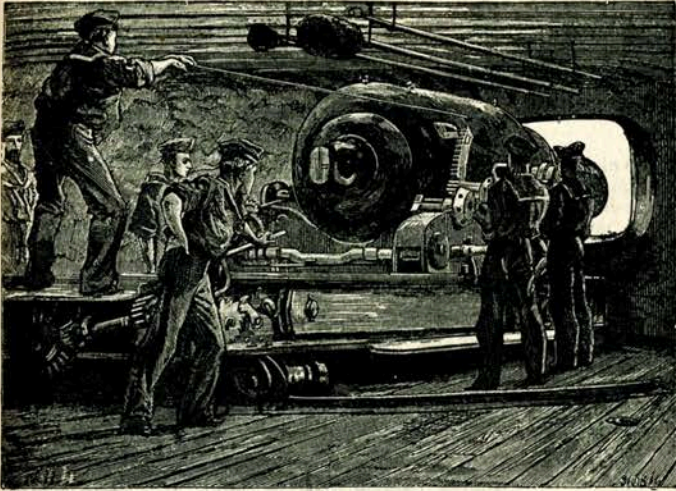
1. “I say, we hear you know some awfully exciting ghost stories; We do wish you would tell us one.”



2. “GHOST STORIES, did you say? Yes, sit down on that form; I will make your blood curdle.”



3. He commences the story—



FIRING A BIG GUN.

MONARCHS OF THE SEA.

Chats About Some Great Ships.

A TURRET-SHIP: H.M.S. "HOOD."

"CERTAINLY you should understand the difference between a turret-ship and a barbette-ship," said my friend, "and it would be well to learn something of their development."

"Yes, I should like to know, but it would be taking up your time."

"Oh, I daresay, if you listen, I can tell you in ten minutes or so enough to go on with. You know the *Hood*?" I signified assent.

"Yes, she was at Chatham. She's a turret-ship. Here is a picture of her, and she practically only differs from the *Royal Sovereign*, of which you have written, in her turrets. The *Hood* is the only one of the eight first-class battleships, under the programme of 1889, which carries her four big guns in turrets. She is the latest development in that line.

"Well, her freeboard is lowered to that of the *Nile* and *Trafalgar* by this change, and the command of her guns may suffer in consequence in a rough sea. But she is a splendid vessel, 380 feet long, 75 beam, 14,150 displacement, 13,000 calculated horse-power; her side armour 18 inches, protective deck 3 inches thick. Her heavy guns are protected by 18 inches of armour on the turrets and 17 inches on the redoubts which protect their bases.

"Yes, the hull is protected by a belt of armour 250 feet long and transverse bulkheads, a steel deck above it; a protective under-water deck below the belt completes the 'protection.' Besides, there is 5-inch armour above the belt on the broadside to 9 feet above water, and armoured bulkheads screen the central battery.

"Pretty well enclosed? Yes; and within the 5-inch steel armour are the coal bunkers. When some hundreds of tons of coal are in them you can imagine that there is some other protection.

"The armament may be classified as main, secondary, and minor. The first consists of the four 67-ton guns in the turrets; the second comprises ten 6-inch 100-pounder quick-firing guns; the last of ten 6-pounder, twelve 3-pounder, and eight machine guns. Four of the quick-firing guns are mounted in steel 'forts,' armoured, and can be trained on pivots to range sideways, or can be hauled in by travelling chain-gear and 'housed' between decks. After this description, you can look at the picture and take it in.

"Oh, the turrets! Yes, yes—of course. We owe them to the late Captain Cowper Coles, who perished so sadly in the *Captain*, which he himself designed. I was on board her at Plymouth just before she sailed; but no matter.

"Captain Coles put a gun on a raft (in the Russian War) and protected it with casks. This was the original notion of the turret for ships. The idea was developed, 'turn-tables' were introduced instead of the old handspike lever movement, and now the guns revolve in the turrets with the shield, or by themselves in the barbette, which is not enclosed like in a turret. The guns are exposed *en barbette*.

"The *Devastation* was the first mastless turret ship; then came the *Thunderer* and *Dreadnought*. Other types were tried such as the 'central-battery,' in the *Alexandra* and *Sultan* (not turrets). The *Inflexible*, *Colossus* (an improvement on the *Inflexible*)

the *Nile* and *Trafalgar*, improved *Dreadnoughts* double-turret ships, in a 'central citadel.' The *Hood* is the latest and probably the final development of the turret system.

"No, the armour is not always placed in the same way. The *Alexandra* class has a complete belt round the water line, varying from five to twelve inches, and carried up to the central part where the 'citadel' is. The *Colossus* has an armoured deck, with unarmoured ends fore and aft, but a central armoured citadel, in which are the turrets clothed with eighteen inches of armour. The *Nile* and *Trafalgar* are belted nearly all round with 4-inch armoured decks, and a large portion, including the central battery, protected with 18 and 20-inch armour. The turrets are fore and aft, not in the centre as in the *Colossus*; the quick-firing guns are in the central battery and on the spar-deck above it."

"Are there any single-turret ships?"

"Yes, the *Victoria* was; the *Sanspareil*, *Rupert*,

Conqueror, and some others, are single-turreted. The *Victoria* is no more, but the others remain. So you perceive that a turret-ship may have two turrets or one, and may, if double-turreted, have the guns mounted fore and aft or in the centre."

"The guns must require great care in manipulation, I suppose?"

"Yes, it is very necessary to drill the crews in gunnery. The machine-guns are in the fighting-tops, those expanded shields which you see upon the two masts of the *Hood*. Besides the eight machine guns she carries seven fish torpedo dischargers."

"There are heavy and light guns, I presume?"

"Yes. Heavy guns are those of four-inch calibre or upwards; light guns those below that measurement. Quick-firing guns, you are aware, are those in which the charge is in a metallic case, and are loaded by hand. Machine guns are loaded automatically."

"But in the turrets?"

"The turrets (or the barbettes) are distinguished as 'right' and 'left.' Broadside guns are numbered from fore to aft,

and the working of these guns is managed by certain sections or crews. For instance, the turret right gun (67-pounder) is worked or 'manned' by the starboard watch—the starboard being the right-hand side of the ship. Similarly, the left gun is manned by the port watch; and the men know their stations, so there is not the least hesitation when the bugle sounds for action.

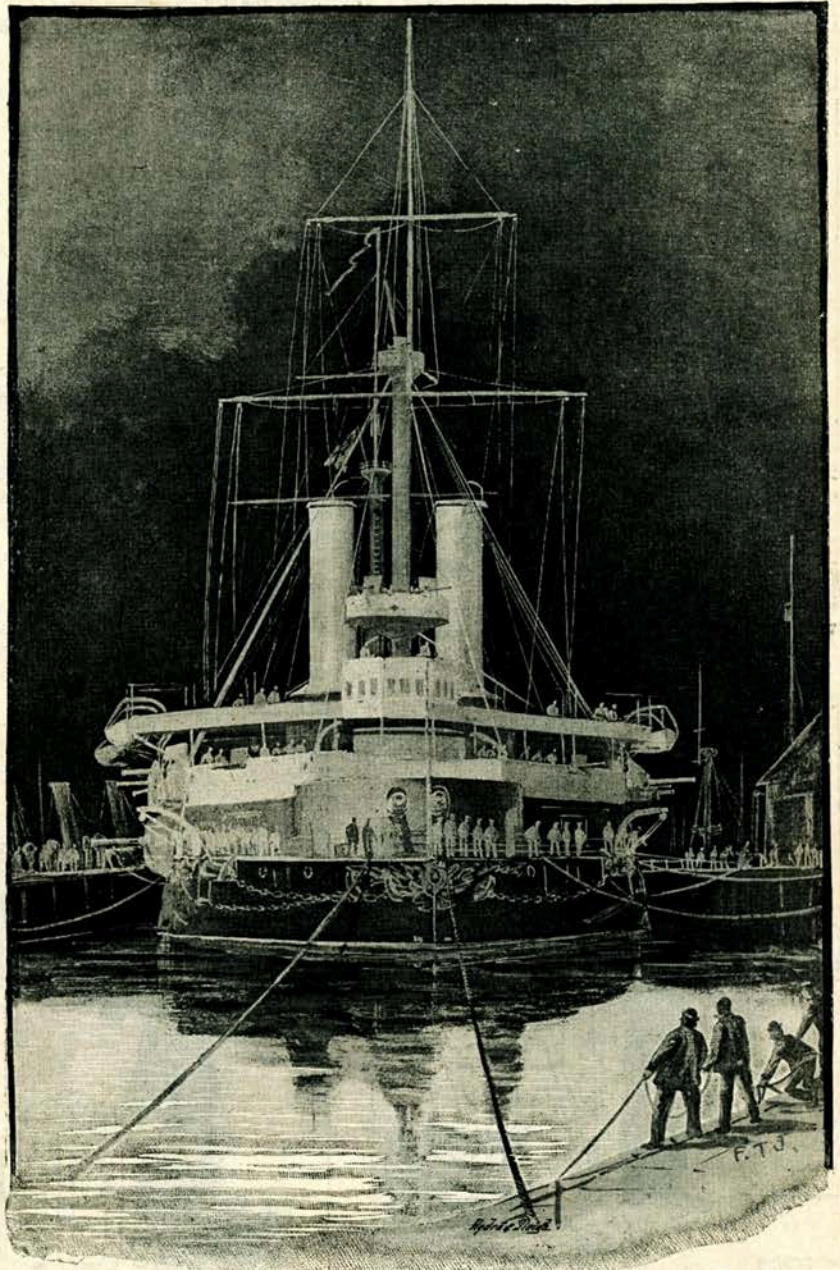
"The midship guns? Oh, they are worked by crews from either side, half from each watch; the others entirely by their respective watches, and, as I say, every man knows his station as in fire-drill, and goes to it at once, and to nowhere else, to 'quarters.'

"Can I tell you about the drill—the gun drill? Yes, a little; but it is impossible to detail it in its various phases. Still, you can learn something for the readers of 'CHUMS.' The numbers of the crews vary. There may be a dozen or twenty, according to the requirements of the gun. Some with less than a dozen, as in the case depicted in the illustration.

"The first action when the bugle sounds is to 'cast loose' the guns. Then all the first preparations are made, the firing keys ready, and so on.

"Number 2 is the 'loading position.' The gun breach is opened, and the breach chamber cleansed, and so on.

"Number 3 order is 'load.' This action is performed by hydraulic machinery. The projectile is inserted, and the immense weapon is then 'run out' of the turret or casemate, roughly pointed, sights



H.M.S. "HOOD."

are adjusted, the turret is trained in the proper direction, and the gun is then (Number 5) 'ready.'

"At this stage the gunner puts the firing-key at full-cock, and waits the word of command to 'fire.'

"Then the enormous projectile rushes forth—a fearful roar, a deafening discharge, a cloud of thick smoke! The enemy can tell more about the later developments of the shot than we can, or than the crews are able to do.

"They—as soon as the gun has been discharged—bring the cannon to the loading position, and then to the 'cease firing' position, if in practice, when the crews fall out. If there is an engagement the firing is continued from the 'loading' position, and so on *da capo*, over again."

"I wonder the recoil of the gun does not do some harm. It wouldn't be pleasant to have one's little toe touched by a 67-ton gun in retreat."

"No, certainly not, nor one's leg either. The effects of recoil were first obviated by a most ingenious arrangement, the invention of Admiral Scott. He devised a patent compressor. The recoil is now absorbed by hydraulic pressure. There is no recoil in quick-firing guns."

"It seems complicated, but—"

"In actual practice it is all as smooth as the gun itself. Many hands make light work, and as each man knows his duty and his place, there is no fric-

tion, no collision. The captain of the turret knows exactly what has to be done and the men who should do it. The men know this, and it is astonishing how rapidly a monster gun is loaded, run out, and fired; reloaded, pointed, and again fired, time after time, with a precision and absence of anxiety or nervousness which civilians would envy."

"Is the *Hood* a fast ship?"

"She can steam seventeen knots, carries nine hundred tons of coal, and if required could steam, without stopping, five thousand knots, at the rate of ten per hour. More than 5,500 miles, at eleven miles an hour. There's a vessel for you!

"Wonder they do not work guns by the electric current? Yes; it has not been generally adopted yet, but the guns of the *Barfleur* are so worked. She and the *Centurion* are sister-ships, and if you look in again some day I will give you a few hints."

I warmly thanked my courteous friend, and quitted his apartment, leaving him to the inspection of a new issue of Commander C. N. Robinson's admirable "British Fleet," a book for all time and for everybody, and one which every one who wishes to learn about the Navy, as it was and is, should read.

It Failed To Work.

"WELL, my boy," said his father, "I understand you've been fighting."

"I was in something of a row," replied the son.

"Well, I suppose, boys will fight, and there's no use trying to stop it. You don't look much the worse for it."

"Got off fairly light," said the boy.

"Beat the other fellow?"

"Well, hardly."

"Um, that's bad. Did you follow my advice?"

"Yes, father."

"You struck the first blow?"

"Yes, father."

"And hit him hard?"

"As hard as I could."

"Knocked him down?"

"Knocked him down."

"And that didn't end the fight?"

"Well, I should say not."

The old gentleman looked puzzled.

"That's funny," he said; "I never knew it to fail when I was a boy."

"Perhaps, when you were a boy, the other fellow didn't fall on a heap of stones, and get up with a big flint in his hand and chase you a mile. That'll make any kind of a system look silly."

OUT WEST.—Office Boy: "Say, sir! Here's a big feller downstairs wants to fight yer for some'in' yer said in the paper; an' a sad-eyed little woman with some poetry."

Editor (resignedly): "Show up the pugilist."

An old lady said she never could understand where all the Smiths came from until she saw a sign, "Smith Manufacturing Company."

Neither Could Talk.

How long the lamp of conversation holds out to burn between two persons only is curiously set down in the following passage from Count C——'s account of his imprisonment.

I am an old man now, yet by fifteen years my soul is younger than my body (he says). Fifteen years I existed (for I did not live—it was not life) in the self-same dungeon, ten feet square.

During six years I had a companion; during nine I was alone.

I never could rightly distinguish the face of him who shared my captivity in the eternal twilight of our cell.

The first year we talked incessantly together; we related our past lives, our joys for ever gone, over and over again.

The next year we communicated to each other our thoughts and ideas on all subjects. The third year we had no ideas to communicate; we were beginning to lose the power of reflection.

The fourth, at the interval of a month or so, we would open our lips to ask each other if it were indeed possible that the world went on as gaily as when we formed a portion of mankind.

The fifth we were silent.

The sixth he was taken away, I never knew where, to execution or to liberty; but I was glad when he was gone—even solitude was better than the dim vision of that pale, vacant face.

Fearless.

THE testimony of all brave soldiers is to the effect that in their first and several subsequent battles they were dreadfully afraid, which feeling gradually wore away until they could face a cannonading unmoved. Is this bravery, or is it the contempt that comes from familiarity? Something of both, perhaps, or else we cannot account for the coolness in the face of death so often displayed.

A captain in the American civil war, after an engagement, seated himself under a tree, and was smoking a pipe, when a stray bullet knocked off the bowl of the pipe, leaving the stem in his mouth. He continued to puff for a moment, and then said to his orderly:

"This pipe draws too well, Robinson. I wish you would bring me a fresh one."

The second anecdote is an incident told of the French General Custine and his aide-de-camp, Baraguay d'Hilliers.

During a fierce battle, Baraguay was reading a dispatch to the general, holding the letter with both hands, when a bullet passed between his hands and cut a hole through the paper.

He paused in his reading and looked closely at the riddled page.

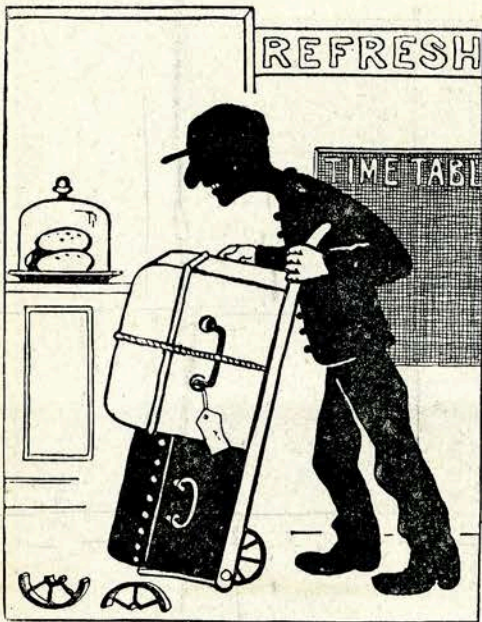
"Go on—go on," said General Custine.

"I beg your pardon, general," said Baraguay d'Hilliers, "but a word seems to have been blotted out here. Well, I will go on with the next."

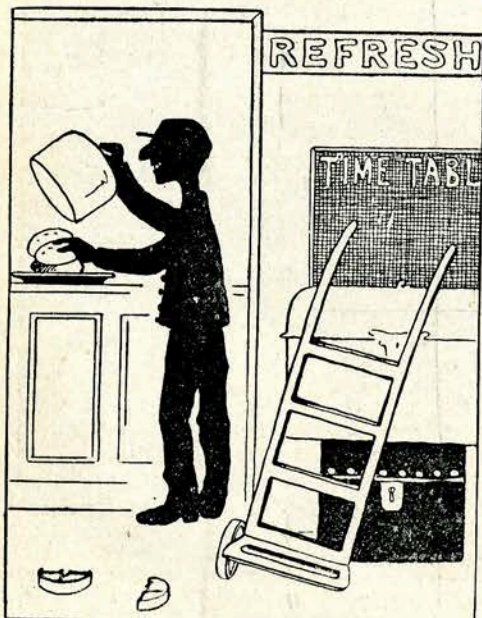
This may have been affectation, but most people will incline to call it true bravery.

Fortune's Wheel.

A Hint to Luggage Porters.



PORTER: "There's that wheel broke. That's awkward, and the train just due"



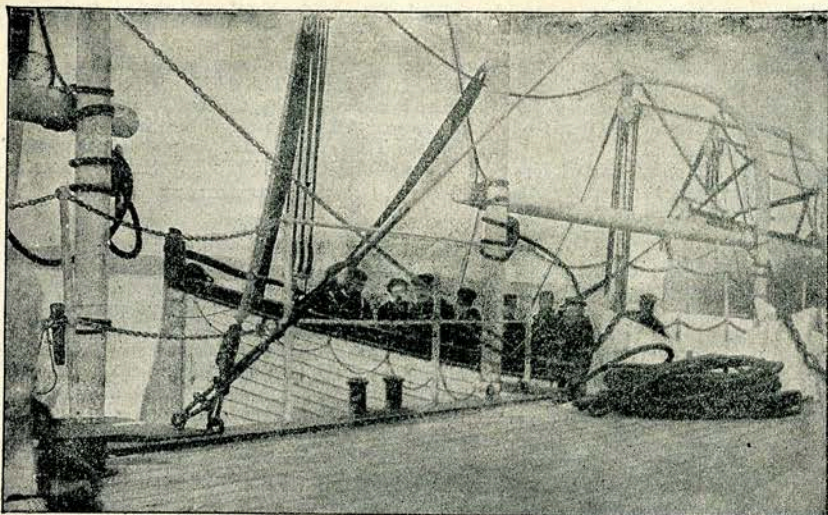
The refreshment-room being near, he joyfully helps himself to a bun.



And very quickly fixes it on to the broken barrow.



Where it answers its purpose satisfactorily in every way.



READY FOR BOAT-DRILL.

MONARCHS OF THE SEA

Chats About Some Great Ships.

A FLOATING CASTLE.

I WAS standing on the deck of a yacht belonging to an old friend of mine. "What steamer is that?" I asked, as a pair of funnels appeared beyond the point near the Lower Hope.

"She's a Donald Currie," was the reply; "one of the 'Castles'!"

As the fine steamer came down the Thames that Friday afternoon, I thought how enjoyable a trip round to Southampton would be in one of those swift and stately vessels. As this "Castle" passed us, I made up my mind to learn something about the line for "CHUMS"; and an application to Messrs. Donald Currie & Co. was most kindly and cordially responded to.

"How old are we? The 'Castle' Line was started in 1872; the Union Company had the Cape and Natal service then, and Sir Donald went into the trade, not as a rival exactly, but to keep out other opposition. It was not long before Sir Donald Currie perceived that the Government intended to continue to give the whole of the Cape Mail Contract to the Union Company. This the 'Castle' Line opposed, and in 1876 the Cape and Natal contracts were divided between the two companies, and still remain so.

"Our largest vessels are the *Tantallon Castle* and the *Dunottar Castle*. The former is 5,636, and the latter 5,465 tons gross. The hulls are of steel, and the ships are divided lengthways and transversely into compartments having continuous cellular double bottoms. The water-tight bulkheads reach to the upper deck, so these and all our fleet are as safe as human skill can make them.

"How many vessels do we muster? Sixteen ocean-going steamers and two Intercolonial boats of much less tonnage. Their names are, no doubt, familiar to you—*Norham*, *Hawarden*, *Roslin*, *Pembroke*, *Grantully*, *Drummond*, *Garth*—all 'Castles,' of course; and the latest of all the *Harlech Castle* and the *Arundel Castle*, intermediate steamers, which carry saloon and third-class passengers, on the Midland Railway principle—first and third. The funnels are red, tipped with black.

"The *Tantallon Castle* is the largest? Yes. She has one funnel only, three masts, all slightly raking, or inclining aft. The hull is, as usual with us, painted grey, and on the upper works white red underneath, and altogether, you may perceive, the effect is decidedly pleasing and graceful.

"One would scarcely estimate the vessel at her real tonnage? No, you are right; and yet when you look about you and see the extent of cabins, saloons, promenade-deck, deck-houses, etc., you will be able to grasp the facts. We can seat 150 passengers in the first-class saloon, and there is a children's saloon besides."

also a hairdresser's shop filled with every necessary adjunct and requisite. Nor are second-class passengers neglected. Their apartments are as airy and pleasant, if not so luxurious as the first-class. Nevertheless the furniture is rich in white enamel and velvet, and comprises sofas, swivel chairs and cosy settees.

"Machinery?" said our guide. "Well, our engines are 7,500 horse-power, quadruple expansion, with four cranks. The *Tantallon Castle* holds the Castle Line record passage to and from the Cape, 15 days, 7 hours.

"Ever have any exciting incidents? Yes, sometimes. Of course, one cannot cross the ocean without encountering some adventure. I'll tell you one of the bravest acts we ever had to record. It was performed by the chief-officer of the *Norham Castle* in February last. Take a note of it; it will interest your readers.

"The sailing ship *Fascadale* left Java with sugar for Lisbon, but encountered bad weather, and finally went ashore near Shepstone, which you will find south of Durban, about 31 deg. S. lat. The vessel was on the rocks, and some of the crew tried to reach the land. One man managed to float to the beach, but two others who attempted to do so were drowned, so the rest, some eighteen men, still were clinging to the rigging of the *Fascadale*, and four to the jib-boom, when the Castle liner, *Norham Castle*, was sighted.

"You may imagine the feelings of the men as they clung to the only remaining mast, the waves washing over them continuously, and death threatening them every moment. As soon as the *Norham Castle* caught sight of the wreck she steered for it, but the sea was

"They are beautifully fitted up," I remarked.

"Yes; we trust we have done well. Here is the drawing-room of Italian design, a smoking-room. Just look around; you will be interested."

We were interested and pleased with the airy rooms, the luxurious sleeping apartments furnished with wardrobes, chests of drawers, mirrors, lighted by electricity, supplied with bathrooms, hot and cold, and douche;

high, and it was no light task to launch a boat and approach those dangerous rocks in such a boil. Mr. Whitehead, however, the chief officer of the *Norham Castle*, was equal to the occasion. He called for volunteers, and a lifeboat was pulled to within 150 yards of the wreck. But it was impossible to pull in nearer, and yet necessary to get a line aboard the wreck if the men were to be rescued.

"Mr. Whitehead did not hesitate. Seizing a line and a life-buoy, he plunged into the roaring waves and swam towards the wreck. As he was swimming another form was seen to leap from the sinking ship, and in the midst of the waves, the chief officer and a young apprentice named Ferries met, joined lines, and made a communication with the ship. By these means, seventeen of the crew were hauled on board the liner's boat. The captain of the *Fascadale* was washed overboard while his men were being rescued, but Mr. Whitehead saw the danger, and once again leaped with a life-buoy into the sea to rescue the captain. He reached him, and swam with him to the boat.

"Only five men now remained on the wreck, but the surf was so great they could not be reached. The boat returned to the *Norham Castle* for rockets, but communication could not be effected, though eventually four of the men were saved from the shore. Eighteen lives were saved by Mr. Whitehead and those helping him."

"A splendid rescue," we cried. "Mr. Whitehead is a noble fellow!"

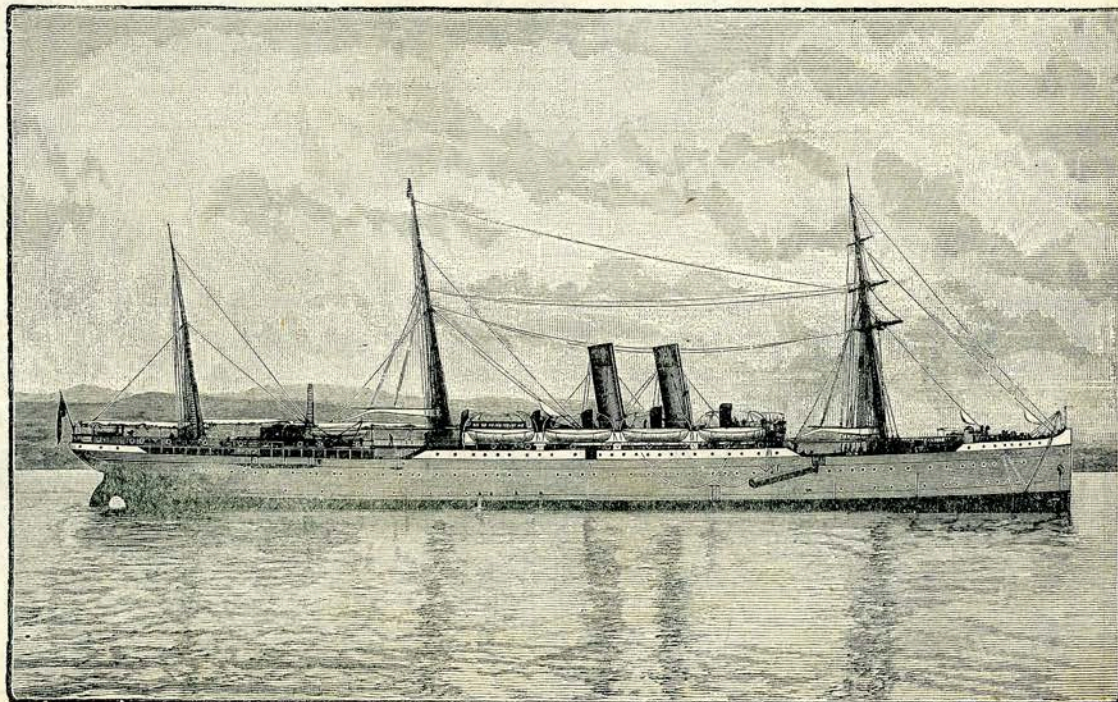
"Aye, aye; and he would be one of the first to admit that the 'Castles' can boast many other plucky officers and men. But you wanted some particulars of our chairman, I think? Yes? Well, Sir Donald Currie is seventy years old now, but you wouldn't think it. He's as smart, as energetic, as business-like, and as kindly as ever. He can shoot splendidly, and from either shoulder, too. He was first connected with the Cunard Company, for whom he did a splendid business, but in 1862 he thought he would initiate a line of his own. He did so, and started 'Castle' sailing-ships between Liverpool and Calcutta.

"This, his first venture, was followed in 1872 by the foundation of the 'Castle' steamers, the rapid and increasing development of South Africa necessitating more accommodation.

"The first steamers were small by comparison. The *Iceland* and *Gothland* opened the line in 1872, and in 1876 the 'Castles' were built: the *Windsor*, *Edinburgh*, and *Walmer* arose in quick succession, and of about 2,600 tons each. The demand for larger and more luxurious ships increased, and Sir Donald Currie is always to the fore you may depend. Many notables, such as Mr. Gladstone, the late Lord Tennyson, and others, have sailed with him, and a very nice little book has been written on the 'Cruise of the *Dunottar Castle*.' Would you like a copy?"

I thanked him, and asked how the voyages were performed.

"From Blackwall and Southampton. We 'sail'



THE "DUNOTTAR CASTLE."

from London on Fridays and from Southampton on Saturdays. Every alternate Friday there is an intermediate steamer, which calls at Las Palmas. The other weeks the steamers go *via* Madeira, so we have a weekly service. Some boats call at St. Helena and Ascension.

"Yes, sir. Sir Donald Currie has been intimately associated with our history in South Africa, for the 'Castle' ships have been utilised in the transmission

of troops and despatches. A telegram, an order, and an ocean-going steamer is arrested in her course; despatches 'wired' to her, and many days and lives are saved! Such was the procedure after the disaster at Isandhlwana; and by these means the departure of the garrison of Ekowe was countermanded, and the troops were saved.

"If the counter-order had not been carried forward by the Castle liner from Cape Verd, where she

was stopped, all the Ekowe garrison would have fallen into the clutches of the Zulus, and we must have sustained a terrible loss.

"Discipline and punctuality? Yes, these are essential. Drills and such exercises—boat-drill, fire-drill, and so on—are practised. Boat-drill is very necessary indeed, because in the event of an accident each man is instantly at his post, the various crews of the boats are ready, and the passengers are distributed without confusion or delay. Here is an illustration showing the men ready for boat-drill."

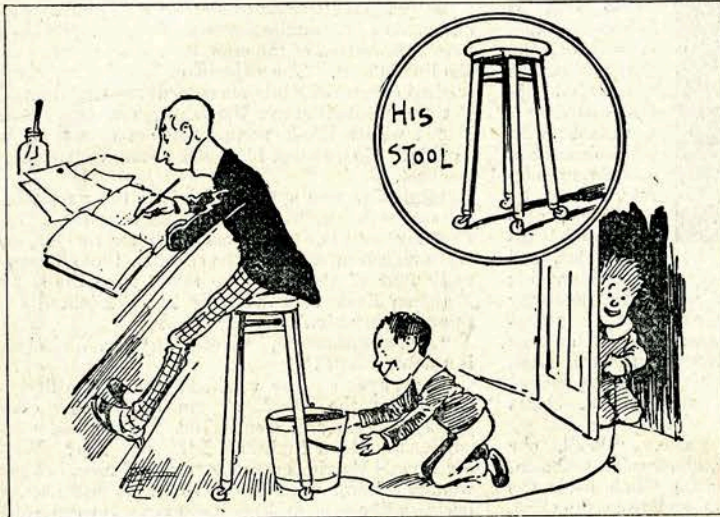
"The *Arundel Castle* is the latest addition to our fleet. She was built by our old friends the Fairfield Company, and launched last October. She is 430 feet long, 46 feet beam, 4,588 tons, and 3,500 horse-power. She also is constructed with double cellular bottom, and subdivided by nine watertight bulkheads. Her speed is about 16½ miles an hour. She sailed on her first voyage on 15th February.

"What did you say? Games on this big deck? Rather! Not to mention cricket, which is played by all passengers, there are bull-board, shovel-board, quoits, croquet, and athletic sports. When an English cricket team went out to the Cape a few years ago, I have seen Briggs bowling to Maurice Read and Abel on the deck of the *Garth Castle*, and being hit about too. Bull-board consists in pitching a disc upon the squares of a slanting board. The game is 50 up; if you get a 'bull'—the head being painted on two squares—

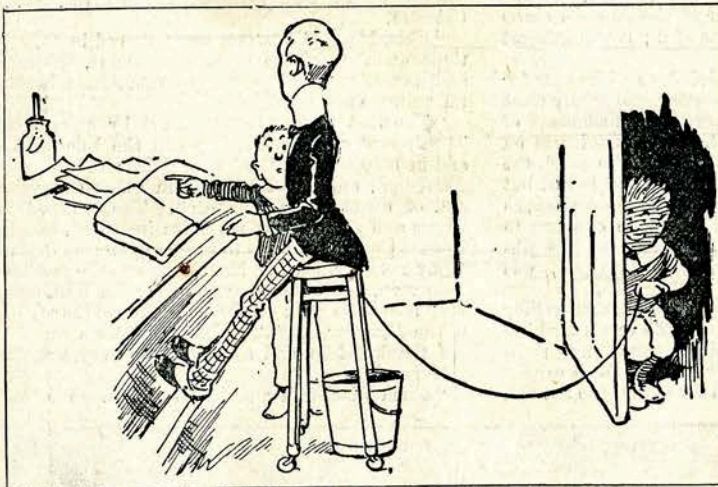
you score *minus* 10; the space between the heads counts 10, and is the highest score. Then there are jumping, running, thread-needle, and obstacle races, dances, fancy balls. The decks are illuminated by Chinese lanterns and by electricity, and compose a fairy scene. All young people are happy on board one of the 'Castle' liners; and you may tell the readers of 'CHUMS' that I say so."

HENRY FRITH.

"Larks" at the Office.



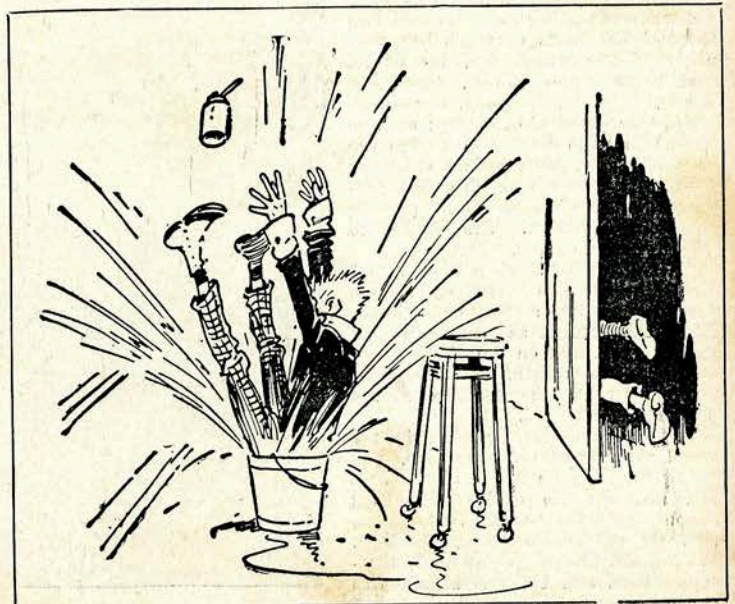
1. Jimson was a genius. He fastened four castors on his office stool so that he could move it about more freely; but the Demon Office Boys thought it a good opportunity for practical joking, so they placed a pail of dirty water under his stool.



2. And while one of them asked Jimson to hand him something out of reach—



3. The other gently drew the stool away.



4. Then Jimson sat down again!!

Heroic.

A STORY comes from L— of a little boy who was playing with gunpowder, and lost the tops of the fingers and some of the thumb of his left hand. He was taken home, and the doctor who was called in advised the removal of the sufferer to the hospital.

The lad was afraid that his master would think that he was playing truant, and insisted on being brought before him *en route* to the hospital.

His master was very sorry, and expressed his sympathy quite freely.

"Do you feel badly about it, Willie?" he asked.

"About what?" said the boy.

"Why, about losing your fingers and going to the hospital."

"Well—no," said he; "I don't feel so bad about that; but I'll tell you, I'm longstop for our cricket club, and we are going to play a match to-morrow, and I feel terrible to think that I'm out of it."

Too Sharp.

AN English traveller who had often heard that the Venetian gondoliers were remarkable for their perfect acquaintance with every building and locality, however obscure, in their beautiful city, determined to put their knowledge to the test, and with this view stepped into a gondola, saying to the boatman who awaited his orders:

"Take me to the church of San Berlingo."

The gondolier fell into a brown study, and answered after a while:

"Signore, I don't know where that church is."

Our Englishman pretended to get very angry, and went in search of another boat, repeating the same proposal and receiving the same answer four or five times in succession.

At length one gondolier received his orders in silence, and, plying his oars, sailed on and on for over an hour, drawing the boat to land opposite some distant church, where he said to the passenger:

"Here you are, signore."

"And is this really the church of San Berlingo?" inquired the latter, in great surprise, well knowing that there existed no church of that name.

"Oh, certainly!" added the boatman, "this is All Saints' Church, so that if your San Berlingo is really one of them this must be his church too."

MANY a man points out the road to success who has never travelled it himself.

MOTHER (proudly): "And so you got to the head of the spelling class to-day?"

Little Son: "Yes mother. The whole class missed spellin' a word 'cept me."

"And you didn't?"

"No. There was only one other way left to spell it."

MONARCHS OF THE SEA.

Chats About Some Great Ships.

A BELTED CRUISER: H.M.S. "ORLANDO."

"COME in, come in!" cried my friend the naval officer, who had previously afforded me much information. "I shall be ready in a few minutes. Sit down."

"Now," he cried, after a pause. "Let me see, what is it? Oh, yes. You wish to have a chat about belted cruisers. Well, here is the *Orlando*. You can't have a better example. Look at the illustration."

"Are there many of her type?" I inquired.

"Seven. The *Orlando* herself, the *Australia*, *Narcissus*, *Immortalité*, *Undaunted*, *Galatea*, and *Aurora*. All 'first-class' cruisers, as the *Blake* is, but of quite different type.

"Armour-clads? Well, I must explain that this

is a non-technical term. It has been the custom to designate ships which have their armour protection placed vertically 'armour clad.' Those which carry their armoured protection in the form of horizontal or sloping decks are called 'protected' vessels. But, as I said, the terms are non-technical and arbitrary. No ship is completely armoured.

"Yes, the *Orlando* is a cruiser—a 'belted cruiser.' She and her types are protected by a belt of steel-faced composite armour ten inches in thickness, with six inches wood-backing. This protection is 'finished off' with 'athwart-

ship bulkheads' of sixteen inches composite armour, so that she may be secured against a raking fire, which means a discharge of projectiles sweeping fore and aft from end to end of the ship. This the cross bulkheads will check, and limit the damage."

"The cruisers are not intended to fight in line, I suppose, are they?"

"No; they are not primarily intended to engage in company. As I have mentioned, they act as scouts and commerce-protectors, to hunt down the enemy's 'destroyers,' 'sea-wolves,' which prey upon our merchantmen and sea-borne property, food, or material. A cruiser-scout wants to report her news to the admiral, but she will fight if intercepted, at the last. As a commerce-protector she will chase and engage the enemy's ships. But a battle-ship's first and the cruiser's last business is fighting.

"Yes, you understand that the cruiser must be swift, and also well armed and protected. The *Orlando* on her trial exceeded nineteen knots an hour; but her 'sea-speed,' which is a very different thing, is about seventeen knots.

"Oh, yes, she may moderate this. With all on board (I mean with her 900 tons of coal, her ship's company, officers, stores, &c.) she made at 'one-third' power 13.8 knots; at 'two-thirds,' 16; and at 'full-speed,' 18.14 knots. She can steam ten thousand miles 'on end' at ten knots. Her engines are 8,622 horse-power. She was built to accommodate 455 officers and men; that's her 'complement.'

"Any other 'protection'? Yes; in addition to her belt and bulkheads already mentioned there are steel decks level with the top of the belt, two inches thick on the flat, and three inches on the slopes. These decks extend from the bulkheads to the bow and stern, and thus all the vital parts of the ship—

such as the magazines, the shell and torpedo rooms, the boilers, the machinery, steering-gear, the dynamos, and so on—are entirely protected one way or another.

"Above this deck? Oh, over it, and over the engine-room and the stoke-hold, are the coal-bunkers, which also serve as protection. The hull is divided into no less than one hundred and twenty-five separate cells and compartments, under water. So it will not be easy to sink the *Orlando*.

"That erection in front of the fore-mast is the conning-tower. Yes, it is on the 'upper deck.' It is well protected by steel and iron twelve inches thick. All that is passing can be seen from there, and orders can be sent by the 'telegraphs.' The steering is also performed in the tower; it is the eye of the ship—the brain, one may say.

"The armament? Yes, that's important, and the whole question of armament is interesting. There have been changes? Yes, indeed! I do not mean with reference to our old wooden ships, but as regards

shielded and placed on the upper decks and 'tops,' and are very handy. They fire steel bullets which can penetrate the skin of a torpedo boat at about three hundred yards. The barrels are placed horizontally—four, or more at times, placed side by side, and by moving a handle forwards and backwards they can be all discharged in a volley. Of course, if the handle is moved slowly, you get 'dropping' shots. The number of discharges varies with the calibre of the gun, from 100 per minute of the 1 inch to 10 per minute of a 3-pounder gun.

"The Gatling gun has ten barrels, and is also worked by a handle. Maxim and Gardner guns are machine-guns, and Maxim-Nordenfelts quick firers.

"The armament of the *Orlando*? It consists of two 22-ton guns, both of which discharge a projectile weighing 380 lbs., of a diameter of 9.2 in. One of these large guns is mounted forwards and one aft, and they command a wide range, as they can be pivoted in either direction.

"Besides these, this belted cruiser carries ten 6-inch guns, soon to be replaced by quick firers, six 6-pounder, and ten 3-pounder quick-firing guns, seven 'machine,' and three light guns (under fifteen hundred weight), and two 'launching carriages' for torpedoes."

"She is a powerful vessel indeed. Built of steel, I suppose?"

"Certainly. She was built at Jarrow and completed, in 1888, at a cost of £266,812. She is 300 feet in length, 56 feet beam, and draws 22 ft. 6 in. Her armour is compound (steel-faced). She is propelled by twin screws. She is the flagship on the Australian station at present.

No, she is not the first of her name. There was a wooden frigate *Orlando*, which carried 46 guns, that was launched in 1858. But the wooden wall had to give way, and, smart a vessel as was the old *Orlando*, she was compelled to retire before the steel-clad, belted 'Knights of the Ocean'—the modern cruisers—our scouts and commerce protectors of to-day."

HENRY FRITH.

He Waited.

The celebrated French poet, Saint-Foix, who, in spite of his large income, was always in debt, sat one day in a barber's shop waiting to be shaved. He was lathered, when the door opened and a tradesman entered who happened to be one of the poet's largest creditors.

No sooner did this man see Saint-Foix than he angrily demanded his money. The poet composedly begged him not to make a scene.

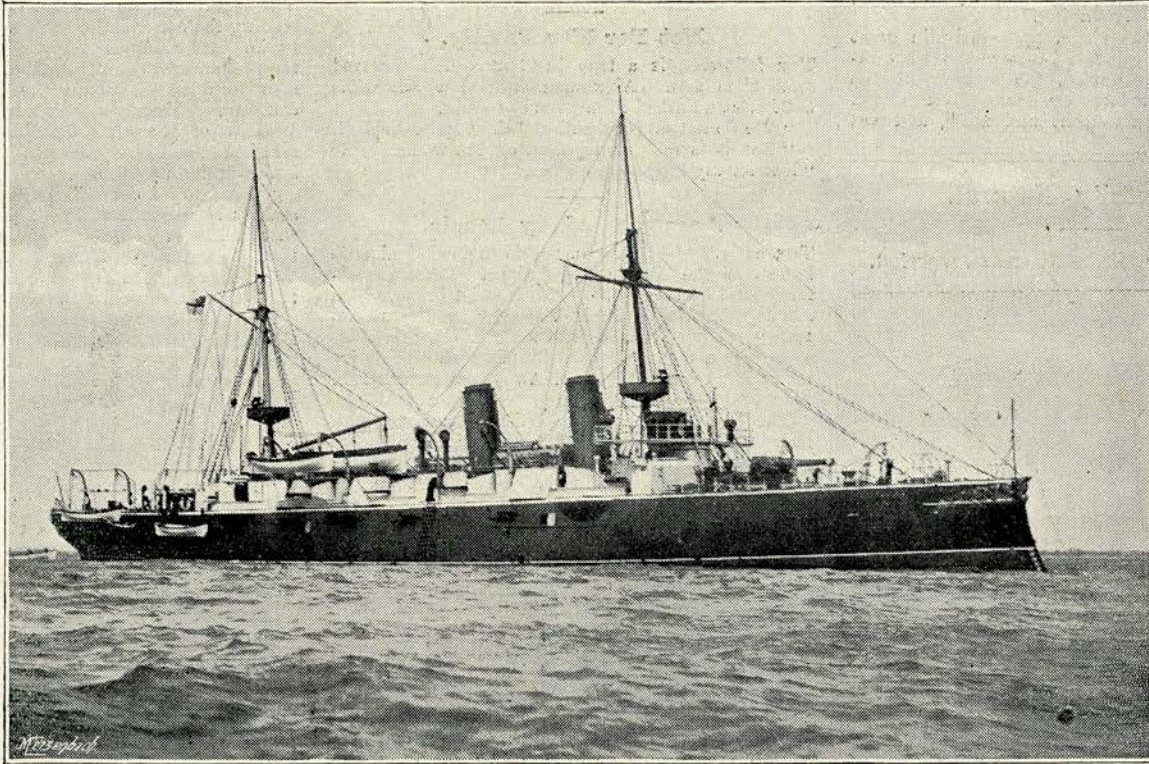
"Won't you wait for the money until I am shaved?"

"Certainly," said the other, pleased at the prospect.

Saint-Foix then made the barber a witness of the agreement, and immediately took a towel, wiped the lather from his face, and left the shop. He wore a beard to the end of his days.

GRAMMAR AS SHE IS TAUGHT.—Master: "Tomkins, can you give me a sentence in which 'but' is a conjunction?"

Tomkins: "'See the goat butt the boy.' 'Butt' is a conjunction, and connects the boy with the goat."



H.M.S. "ORLANDO."

Photo. Symonds & Co., Portsmouth.

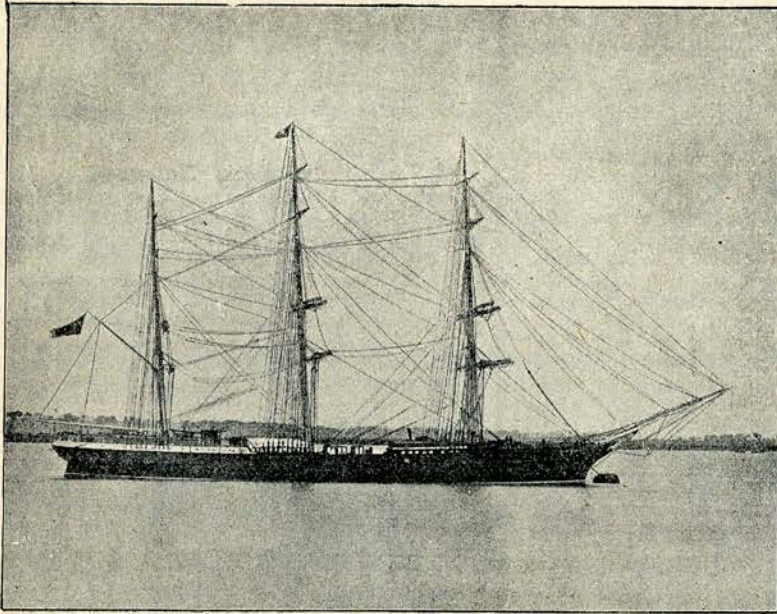
our 'armour-clads,' in thirty years. About that time ago we had only 68-pounder guns. The weight of the projectile was 68 lbs. Then came guns of 6½ tons, which carried a shot of 7½ inches diameter and 115 lbs. weight. Then came 9, 12, 18, 25, and 35-ton guns. From this to 38 and 80-ton muzzle loader—was an advance, but not final.

"Breech-loaders? Yes, now there are; but at one time they were discarded. However, they were readopted in a simpler form in 1881, and made of various sizes, from 14 to 110 tons—heavy ordnance; but the 110-ton gun is not in favour now—it is too unwieldy.

"Quick-firing guns you say? Yes, of course. They come from Elswick and Woolwich. But you should, to begin with, understand the principles of quick-firing guns. There is, in the first place, a breech arrangement, or mechanism, which is constructed so as to be quickly and easily opened and closed, and at the same time capable of throwing away the empty cartridge-case. Another point is that projectile and powder are made up in the same parcel, so there is no trouble of loading twice for one discharge. Besides these improvements, a recoil-apparatus is needed so as to check the recoil—a 'non-recoil system.' So a gun is discharged as fast as a man can put in the charge, and by the lever it also ejects the cases automatically.

"Elswick factories have turned out heavy guns on these principles, which can fire ten rounds in a little more than three-quarters of a minute. We have now 4.7 in., 5 in., and 6 in. 100-pounder quick-firing guns which supplement the big guns (22-ton guns) on our cruisers.

"Machine-guns? Oh, yes! Rifle-bore or calibre, such as Nordenfelts, Gatlings, etc. These are



THE "PATRIARCH."

MONARCHS OF THE SEA.

Chats About Some Great Ships.

FAST-SAILING CLIPPERS.

"AH!" remarked the gentleman upon whom I was calling in Leadenhall Street. "You suppose that steamers do all the trade! Many people think that the sailing ship has had its figure-head put out of joint entirely. Error, sir—error!"

"We have heard of the Aberdeen Line," I ventured to say, shyly, "and I want some information concerning those wonderful clipper-ships, and the steamers, if possible?"

"Well, well; let me see. Perhaps you would like to know a little about the Company to begin with. George Thompson & Co. date from 1825, and the family still carry it on. But the founder, Mr. G. Thompson, retired in 1866, and died recently in his ninety-first year.

"Many vessels? Well, not very numerous, but they are rapid. The steamers and sailing ships are considered unique, one may say, and seldom, if ever, have an accident. Their average in this respect is far below the average of others."

"Then they must be specially careful?"

"The secret is this, sir: every captain in the service is permitted to select his ship's company—officers and all. When I add, as I fairly may, that the vessels are all most liberally manned and equipped, that special instructions are issued regarding the navigation, the arrangement of the watches, so as to avoid any neglect, any fear of a collision, or any too near approach to land, and also as regards organisation, you can understand that safety, so far as human foresight can secure it, is assured.

"Old hands? Certainly. Almost all the commanders have been bred on the line, trained in the service, and even become part owners of the ships they command. This co-operation is very beneficial, and the keenest interest is manifested in the service."

"Up to date, too, I presume?"

"Yes. The Company are well in the front line. They were the first—or, at any rate, amongst the earliest—builders to adopt the clipper form of stem: the graceful curve of the cutwater swelling gradually into the figure-head. They build their steamers with the same cutting stem, not so much because it is best for the purpose, but also because in the event of collision it is not so dangerous and damaging as other forms."

"Then the clipper ship still survives?"

"Of course! There are magnificent ships afloat. I'll mention a few. The *Patriarch*, and *Aristides*, [of each of which we give an illustration] the *Loch Garry*, the *Thermopylae*, *Cutty Sark*, the *France*, the *Liverpool*. Some of these would simply surprise you.

"Tea? No. Steamers rule the tea-trade now. But the racing used to be fine! I could tell you anecdotes about the China clippers which might sound marvellous, aye, and adventurous, too. But the clippers run in the wheat, in jute, and in the wool trades. Take the *Patriarch*, one of the Aberdeen clippers, or the *Salamis*—she's another.

"Fast? I should say so. Not the record of a steamer, mind. The clippers have to depend upon the wind first, and then upon the vessels themselves, the captain, the crew, the trim, and so on. A sailing-ship requires constant attention in her navigation, and all the practical seaman-ship which made England great.

"Yes, indeed. The *Thermopylae* made the quickest run from London to Melbourne that any sailing vessel had ever done—viz., from port to port in sixty days, only seventeen days more than the steamers take nowadays. On one day it is recorded that she accomplished a run

of 380 miles (330 knots), or at the rate of a trifle under sixteen miles an hour. This is remarkable."

We agreed that it was, and inquired for the *Patriarch*.

"She has also an excellent record, and has made the quickest passage home from Sydney. She is 1,339 tons burthen, and was built in 1869. But there are other Aberdeen clippers doing splendid work—the *Miltiades*, *Samuel Pimmsoll*, *Sophocles*, *Strathdon*, *Orontes*, etc. Of course, they cannot compete with steamers in speed;—and the Company have built some fine steamers. Take the *Australasian* as an example.

Mr. Froude's "*Oceana*" came to my mind. "Yes, it was on the *Australasian* that he went out, and in his book he speaks highly of the accommodation and the *cuisine*."

"Sailings? They despatch a steamer every month from London to Australia, by way of Teneriffe and Cape Town, and accomplish the journey in the same time as those proceeding by the Suez Canal route.

"Why? Because the passengers do not then experience the intense heat of the Red Sea, and there is a greater variety in the Cape route. The ships are recognisable by their dark green hulls,

and the White Star flag—that is, a white star in the centre of a red and blue ground.

"The clippers are fine vessels, too. The *Thermopylae* is 948 tons register; she is 210 feet long, 36 wide, and 21 deep. She was one of the tea-clippers, and for rapid sailing is second to none of her compeers. She was built in 1868. The *Cutty Sark* is another swift sailer—963 tons, and 212 feet long.

"Three-masted ships? Yes; full-rigged ships. Of course, you are aware of the difference between a 'ship' and a 'barque'—or bark. The terms ship and barque are used at times indiscriminately, and generally to indicate any class of vessel. But a ship is a ship, and a barque is a barque, and neither of them can be the other, any more than a brig can be a schooner. A full-rigged ship carries yards on her mizzen-mast, and the barque does not."

"There are some sailing vessels with four masts, are there not?"

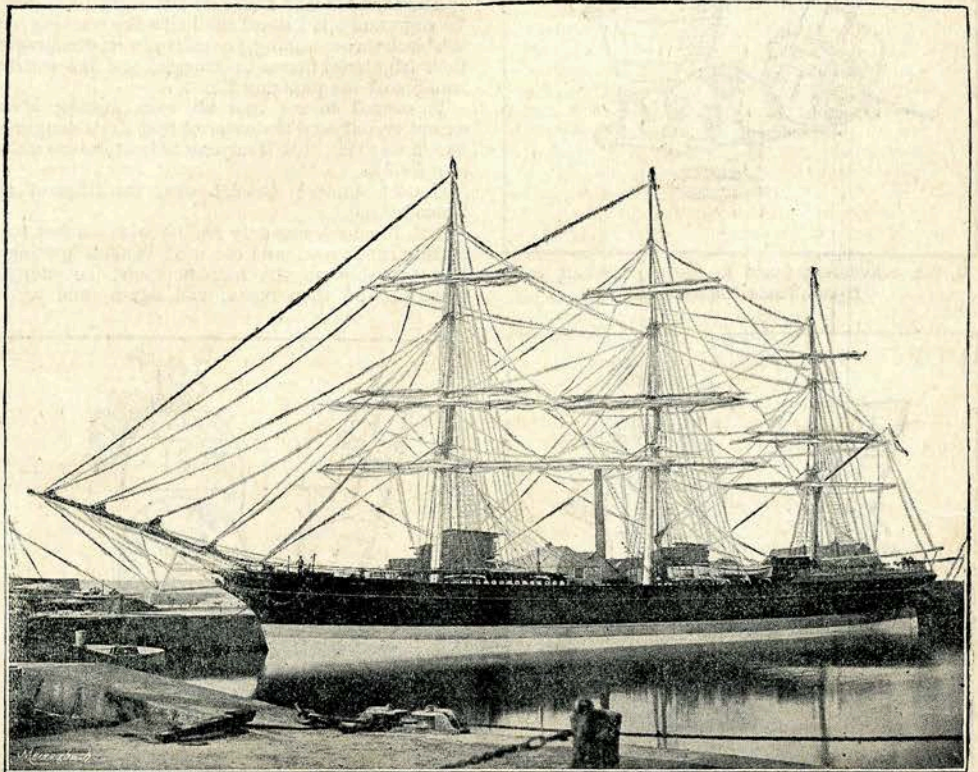
"Yes, and with five. At least there is one ship with five, reputed the 'largest sailing vessel in the world.' She is called the *France*, a British-built ship, too. She was built at Port Patrick, and is 3,750 tons, 360 feet long, and 50 broad. A monster indeed! She is owned by a firm in business in Paris and Bordeaux.

"A quantity of canvas? Well, I believe she sets quite forty sails, and her mizzen-mast has no square canvas, yet we cannot call her a barque, as she has five masts; and though her masts do not appear to be, in fact, they are not so high as other clippers' masts, she has an extensive spread of 'cloths,' and carries on well."

"She must require a number of hands."

"Yes; she would in former days have required a numerous crew. But in these days of steam many can be dispensed with. As a matter of fact, the *France* uses steam on all occasions, even to the manipulation of the 'braces,' which swing the yards, and the steering gear. When you can train a donkey-engine to do the work of the watch, it must be admitted that it seems curious to have cut steam off from the progression of the ship.

"The *France* is a five-masted. There are numerous four-masted ships. The *Liverpool*, launched in 1889, a jute carrier, is about our biggest British sailing ship at present. She is 3,330 tons, and can carry nearly double her tonnage in cargo weight. She is over 300 feet long, and 47½ feet wide. She is only one of a splendid series of vessels, square-rigged on all four masts, with tapering spars, and when under sail a beauty! Laden with 6,000 tons of jute she is not overcome. She dashes through the seas, thrashing the waves, and speeding home all the while. Believe me, sir, for true beauty there is nothing in art at sea—I don't say in Nature—to equal a clipper-



THE "ARISTIDES."

ship in full sail, with the wind just 'abast the beam,' just between the centre and the stern, let us say, or on the 'quarter.'"

"It is a pity that clippers are dying out. The sailing ship is much better in some respects than a steamer, and these Aberdeen and others are remarkable vessels."

"I am by no means of opinion that sailing ships are disappearing," was the reply. "A clipper, or other sailing vessel, may be very profitably employed in carrying some cargoes which do not rapidly deteriorate, such as frozen mutton. Just as the canal boat is profitable for consignments of slowly perishable or of permanent nature, as against the railway, so in a higher and better comparison the sailing vessel is used as against the steamer with advantage."

"One question more. What is a clipper?"
 "Look in a nautical dictionary. It is generally a neat, sharp-built, rakish vessel with fine yacht-like cut-water, and raking stern. Sharp under water, and carrying lofty canvas, the clipper slips through the water like a greyhound over the sward. Good afternoon!"
 HENRY FRITH.

Approximately.

LAWYER (examining witness): "You say you saw the shots fired?"

Witness: "Yes, sir."
 Lawyer: "How near were you to the scene of the affray?"

Witness: "When the first shot was fired I was ten feet from the shooter."

Lawyer: "Ten feet. Well, now tell the court where you were when the second shot was fired."

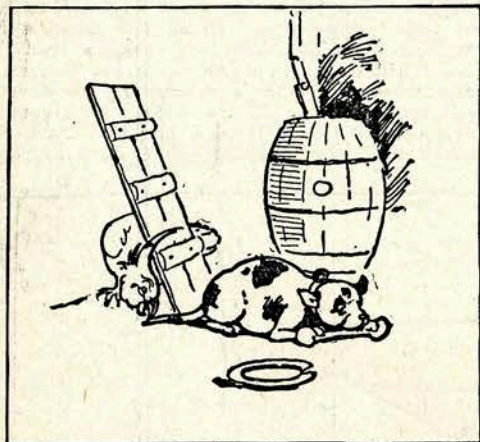
Witness: "I didn't measure."

Lawyer: "Speaking approximately, how far should you say?"

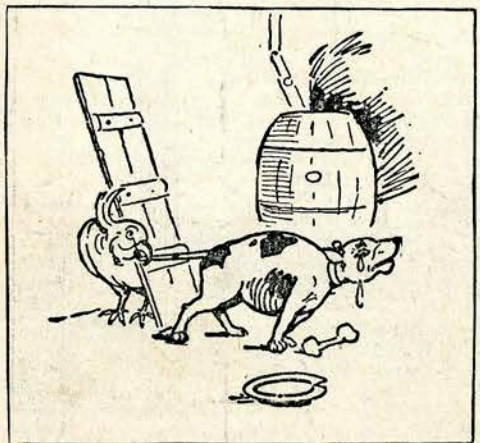
Witness: "Well, it approximated to half a mile."
 WHEN a boy bats his ball through a plate-glass window he may not lose his innings, but the man who owns the window is invariably put out.

Made the Feathers Fly.

A Case of Tit for Tat.



1. "A convenient place to leave your tail, my friend," said the cockatoo.



2. "Ow-yow-yow!!!" whines the dog.

Classified.
 An eminent Egyptologist tells an amusing story of his experience with Custom-house officials at a certain Continental port.

He had landed a case containing a superb mummy, an authentic Pharaoh of the sixteenth century B.C., and counted on seeing it passed without any trouble.

But the Custom-house official insisted on opening the case; and, after a minute inspection of the article inside it, of which he could make nothing, though he concluded that it must be valuable from the care with which it was packed, he told the archaeologist that he would have to levy duty upon it.

"What!" exclaimed the scientist; "duty on an Egyptian mummy?"

But the official was not to be laughed out of his duty.

"It is true," said he, after searching the tariff-table carefully, "that Pharaohs are not mentioned in the tariff, but they are dutiable all the same, for they come under the head of 'unclassified articles,' and are subject to the maximum rate as such."

And as "dried fish" was the most highly taxed of imports, the royal mummy was so taxed.

Stuck in the Mud.

VERY different from both elephant and camel is that true friend of man, the horse. Its sense of discipline will not let it shirk the ground it knows it has to cross, whilst its shape, courage and cleverness enable it to extricate itself from positions that are often fatal to the bigger animals.

It was during the Zulu War. I was one of a party who had just visited the scene of massacre at Isandhlwana (says the narrator), and were returning to our camp when the Zulus, discovering us, opened fire upon the party. At that moment we had just reached a stream that flowed over an unfathomable accumulation of soft black mud, through a bed of enormous bulrushes.

It was at this very spot that many of the British soldiers, flying from the massacre, were overtaken by the savages and killed.

The Zulus, therefore, hoped to take us at the same disadvantage, and following us up—there seemed to be several thousands of them—opened fire as soon as they saw us all in the mud.

But our leader simply ordered us to cross. Under other circumstances we should have said it was impossible. But this was a question, perhaps, of life or death, so our horses were put at the stream, and somehow or other, they floundered through the morass.

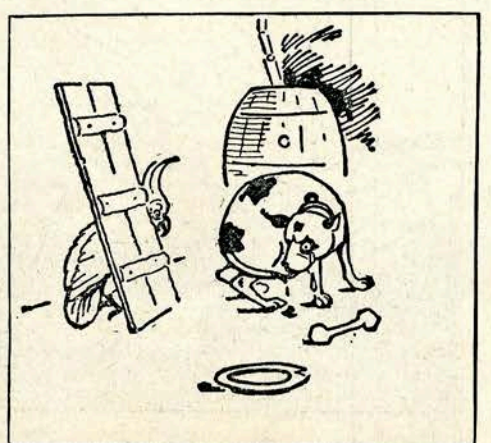
I only know that my own brave horse, "Blue-buck," cleared some five feet of it in a standing jump, and then soused right up to the girths, into the middle of the filthy mess, crashing down the bulrushes under its body as it sank.

And then for half a minute I thought I was stuck. To right and left I heard the bulrushes crashing, and the black ooze splashing, the cries of men encouraging their frightened horses to struggle, and the rattling rifle-fire of the pursuing Zulus.

It seemed to me that all were getting across except myself, and the order of that day's dangerous march was this, that if anyone fell out, no one was to stop for him.

Crack! Crack! Crack! went the rifles of the Zulus behind.

But Bluebuck was only feeling with his feet for a footing in the mud, and the next instant, getting a foot probably on the bulrush roots, he plunged forward, and then again, and again, and again.



3. "Now, I've only to hide myself behind this board, and he'll never find me, dogs are so stupid!"

I cheered him on frantically, but there was little need to do that, for the poor beast knew that he was floundering for his life, and fought bravely.

And then I felt him suddenly touch firm ground; and as if the very touch of it had given him the strength of ten horses, he gave one tremendous plunge forward, and we were on the other side!

Particulars Deferred.

THERE are times when men have to be treated like children—when they are very ill, for instance, or when they are in imminent danger which must be averted first and explained afterwards.

A member of the Alpine Club read a paper before that body on the comparative skill of travellers and guides—a question of great practical interest to mountain climbers, and one as to which there exists a considerable difference of opinion. He began by relating an anecdote.

Some years ago (he said) a member of this club was ascending a small and easy peak in company with a famous guide. Part of their course lay over a snowfield sinking gradually on one side, and ended sharply by a precipice on the other.

The two men were walking along, not far from the edge of this precipice, when the Englishman, thinking that an easier path might be made by going nearer the edge diverged a little from his companion's track.

To his surprise, the guide immediately caught hold of him and pulled him back with more vigour than ceremony, nearly throwing him down in the operation. Wrathful, and half inclined to return the compliment, the Englishman remonstrated. The guide's only answer was to point to a small crack, apparently like scores of other cracks in the ice, which ran for some distance parallel to the edge of the precipice, and about fifteen feet from it.

The traveller was not satisfied, but was too wise to spend time in dispute while the desired summit was still some distance above him. They went on their way, gained the top, and the traveller's equanimity was restored by a splendid view. When, on the descent, the scene of the morning's unpleasantness was reached, the guide pointed to the little crack in the snow, which had grown perceptibly wider.

"This," he said, "marks the place where the true snowfield ends. I feel sure that the ice from here to the end is nothing but an unsupported cornice hanging over the tremendous precipice beneath. It might possibly have borne your weight in the early morning, though I don't think it would. As to what it will bear now that a powerful sun has been on it—why, let us see!"

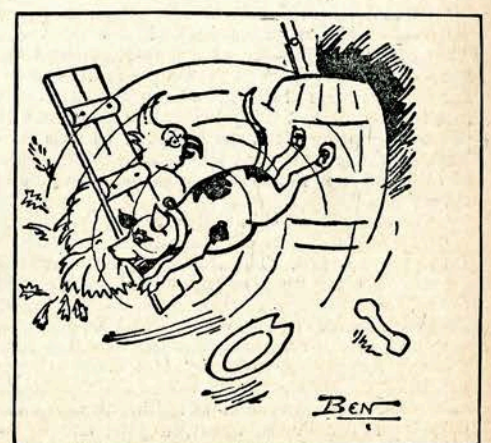
With that he struck the snow on the further side of the crack with his axe. A huge mass, twenty or thirty feet long, at once broke away, and went roaring down the cliff. The Englishman shivered to think how near he had been, even on an easy mountain and in smiling weather, to going down the precipice in just such an avalanche.

CHARLIE (who has been blowing the cornet for an hour): "Ned, do you think there is any music in me?"

Ned: "I don't know. There ought to be. I didn't hear any come out."

"Oh, what dreadful tortures they used to practise in the Middle Ages! Think of breaking a man on a wheel!"

"No worse than nowadays, I can assure you. You never saw me out on my bicycle, did you?"



4. "Oh, dear!"

MONARCHS OF THE SEA.

Chats About Some Great Ships.

H.M.S. "BARFLEUR."

CONSIDERABLE interest having been expressed regarding the battle-ship *Barfleur*, in consequence of her having formed one of the Queen's escort to Cherbourg this year, I proceeded to interview my naval friend once more, and he met me in accordance with his promise.

Let me begin my account of our chat with a few words concerning the name of the ship. *Barfleur* is a French port, and to a stranger it might appear strange that we British had given one of our battle-ships a foreign name. The name is from the battle of *Barfleur* (La Hogue). So, independently of any association with a former vessel, *Barfleur* will always be remembered in English history.

It was from *Barfleur* that William the Conqueror sailed to invade England, and it is stated that thence the ill-fated *Blanche Nef* ("white ship," or a vessel named *Blanche*) put off with a tipsy crew, and struck on the Rock of Alderney, where William, son of Henry the First, and his sister, perished with the panic-stricken sailors.

"*Barfleur* certainly has claims upon our memory," remarked my friend, "and in herself the ship merits our notice. As I think I mentioned to you, she and the *Centurion* are sisters, so a description of one will serve for both.

"Yes, these vessels were built under the Naval Defence

Act, and were originally called 'battleships of the second class.' But the great extension of ship-dimensions of all our sea 'fighting machines' is remarkably instanced in the *Barfleur* and her sister-ship, now first-class vessels.

"How? Why, their displacement is 10,500 tons, and this enables them to carry heavy armament—four 29-ton guns in the barbettes, two forward and two aft. Yes, we returned towards the barbette system in these ships. I will mention the rest of the armament presently.

"There is an advantage in the 29-ton guns over some of larger size, because the former gun can be worked alternately with man-power and with the assistance of machinery or electricity and hydraulic loading. Thus it is not so easily put out of action as a gun entirely dependent upon machinery."

"They are very powerful guns?"

"Yes, indeed, nearly double the effect of the 38-ton muzzle-loading gun. The quick-firing 45-pounder guns are mounted in two tiers on the broadside of the *Barfleur*, and are screened by shields of steel.

"Of course, these twin-ships are armoured, and I may as well give you the dimensions and a few other particulars. The principal novelty in the *Barfleur* consists in the fact that the guns are worked and discharged by electricity at any moment. Thus, at the most critical second, when the projectile will be most effective, the button will be pressed, the current will do its work, and the broadside, or the bow or stern guns, will roar out their defiance and their deadly message simultaneously.

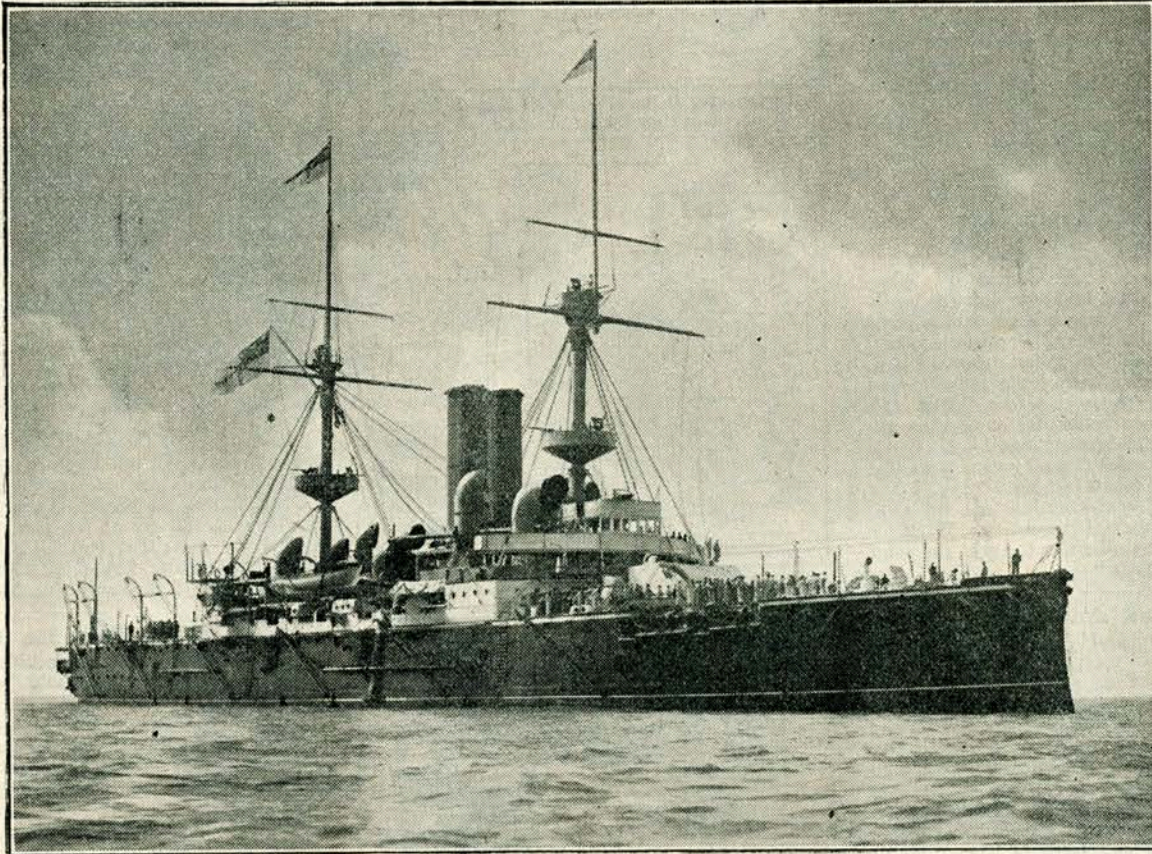
"The *Barfleur* is 360 feet long, 70 feet beam, and draws 25½ feet of water. She was built at Chatham,

and her sister was built at Portsmouth. Both ships are clothed with side-armour 12 inches thick, 4 inches of nickel steel above. The bulkheads, which divide her hull into compartments, have also 12 inches of armour, and the barbettes 9 inches, the deck-plating being 2 to 2½ inches in thickness.

"She carries four 29-ton guns, ten 4.7-inch quick-firing guns, eight 6-pounders, and nine 3-pounders, besides seven machine-guns, two light guns, and torpedoes. She can steam 18.5 knots an hour, and carry 1,240 tons of coal.

"Yes, the *Barfleur* combines a high rate of speed with a very powerful armament. The primary function of a 'battle-ship' is not fast running; she is the fighting ship in line, as her name indicates. But in the *Barfleur* (and *Centurion*) we possess battle ships which are able to perform the duties of a line-fighter and those of an armoured cruiser as well.

"A great advantage? Certainly it is. In such



H.M.S. "BARFLEUR."

Photo. Symonds & Co., Portsmouth.

ships we possess a most useful type, and one which is appreciated by the Navy. There is no detail necessary for defensive or offensive purposes—or for the safety of the crew—omitted. Thus in these, our latest developments, we possess every attribute needful for fighting or cruising, and as a well-known authority has remarked 'the instrument is in due proportion to the human faculty which has to wield it.' The same writer concludes his remarks with the expression of the hope that the success of the *Barfleur* will lead to a great increase in the numbers of what, for a while, were termed second-class battle-ships. Indeed, in these sister ships we have a splendid type of vessel."

"Fighting is not everything," I ventured to remark: "there is manœuvring, and this is dangerous at times."

"Yes, indeed. It has been demonstrated that the movements of these immense ships are attended with some danger, and require the greatest care and calculation in circling and turning, and in steering of course, but there are fewer accidents than in old days. Signals—"

"Ah! that reminds me. You said you could tell me something about signalling."

"Well, let me proceed. Signals must be clearly made, and as clearly understood. This is a most important aspect of our manœuvres. A mistaken signal means disaster.

"How is it done? By flags, or perhaps I should say by certain combinations of flags, which stand in the signal book, and are read off by the ship to which the order is given. Each ship knows which vessel is meant when the number is hoisted. The Inter-

national Code was compiled in 1857, and is used in the Navy to speak merchantmen and foreigners. Of course there are confidential signals also, and means are taken to prevent outsiders reading them.

"There is a 'spelling flag' also for signals in the code. Numbers answer to certain commands, etc. Thus the flags spell out the orders, and by referring to the numbers the meaning of them is ascertained by the initiated."

"How can the ship addressed at a distance ascertain the subject of the signal?" I asked.

"By the uppermost flag of two. The larger calls to attention merely. The pennant being uppermost indicates a 'compass' signal. A square flag is 'distress' or 'danger.' These are when only two flags are used; but if four be in use the reference is different. Signals made with various numbers of flags refer to different subjects; and when the 'hoist' is seen, its reference is at once apparent to the sailor

of any nation who can read the meaning in his own signal-book in his own language. Flags are the universal speech; certain combined colours are certain letters.

"There are other means? Oh, yes. By semaphore. When distant signalling is necessary, any two square flags and any two pennants and two black balls are used in various ways. So in semaphore (closer) signalling the level arm, like a railway signal at 'danger,' takes the place of the ball; a square flag is represented by an elevated arm (upwards); the pennant is replaced by an arm pointing downwards. So even 'with a hat, a handkerchief, and his friend's arm the sailor can make himself understood,'

says Mr. Bolam. Admiral Tryon's last signal was by semaphore. 'What are you waiting for?' he asked.

"There is a 'highest possible' total of signals—viz., 78,642, the number of these possible 'hoists' varying and increasing in proportion to the number of flags used (one to four). A new war mode of signals has been invented by Prince Louis of Battenberg, which consists of a diamond-shaped 'drum,' which can be seen amid the smoke, and is fixed at the 'truck,' so that all may see it open and shut. By these openings and shufflings for certain periods, the letters (dots and dashes) of the Morse telegraphic code are made and interpreted.

"Just as by flag-waving? Yes, precisely. A long 'wag' of the flag held by a man means a 'dash'; a short one a 'dot.' When the 'drum' is inflated or distended a while it means a 'dash'; a momentary inflation means a 'dot'; so a series of 'dots' and 'dashes' are signalled and read by the Morse code. This is a useful invention, as in war the signal-halyards would be shot away, and no one could signal effectively from the deck or bridge. Prince Louis' code can be worked from any place by means of a system of wires; but I believe an improvement upon it has been suggested by Admiral Fane."

"But in the dark—?"

"Oh, then lanterns, electric lights, rockets whistling in long or short blasts, 'shells' of colours, and minute guns may be employed. Flashes will answer to the dots and dashes. A red light port side, and a green to starboard, indicate the approaching vessels."

"Then the flags first mentioned must be of different kinds to indicate different letters?"

"Yes. For instance, in International Code, a white pennant and a red star in it is C, or 'yes'; a white star in a blue ground is D, or 'No.' The other flags are coloured in blue, red, yellow, and white; and each flag is a letter, the vowels being all omitted, as well as X, Y, and Z. So the system is contained in eighteen flags, and a 'code' pennant to indicate its use. In the Naval Code 'Yes' is red flag white cross. 'No' is white with five black crosses; some flags numerals, some letters."

"Thank you," I said. "I am sorry our pleasant chats are over."

"There is still plenty to say, but you have had some excellent specimens of men-o'-war. Good-bye. Very pleased indeed to give you any assistance."

We shook hands cordially and parted. And now, having come to the end of this series, the writer must convey his acknowledgments to the distinguished naval officer who has so generously conducted him past many technical pitfalls into which civilians might easily have tumbled. He would also express his thanks to the officials of the various steamship companies, whose great vessels he personally visited, not only for giving him facilities for preparing the articles, but for their courtesy in reading and revising the proofs of the various chats prior to publication.

HENRY FRITH.

To the Point.

NAPOLEON I. was excessively obstinate. When differences of opinion arose he would storm so loudly and stamp with his feet that his opponents could seldom get in a word. General Bernadotte, afterwards King of Sweden, had to put up with a good deal of that sort of thing, and after a while he kept unbroken silence on these occasions. But this pleased the Emperor no better, for once when the general lapsed into silence he exclaimed—

"Why don't you speak? I see by your looks that you have weighty objections to make!"

"Certainly, sire," Bernadotte admitted.

"Then why don't you state your views?"

"Because I have no inclination to argue the point with your Majesty's boots."

Wanted Another.

AN amusing story is told of a charitable lady, who planned a pyrotechnic treat for a large orphan asylum. She invested nearly £100 in rockets, bombs, catherine-wheels, and more elaborate fireworks, such as were best calculated to distract the minds of bereaved youth.

A gentleman of her acquaintance was invited to perform the actual setting-off of the combustibles, which—while the display was in progress—were piled on and round a chair on the lawn. He mildly suggested that it was dangerous to have them so near while the exhibition was being given; but the objection was overruled by the hostess.

So the entertainment proceeded, beginning with the lighting of a few Roman candles and other trifles, which were intended to serve as an introduction to the more elaborate kinds.

A very few had gone off, to the inexpressible delight of the small boys and girls who were seated on rows of camp-stools at a little distance, when an envious spark chanced to drop upon the chairful of fireworks aforesaid, and immediately there ensued a catastrophe of the most appalling description. For quite ten minutes the entire landscape was ablaze. The operator and his assistants got behind trees to escape the bombs and rockets, which were discharging themselves in every direction at once, while the non-projectile pieces formed a volcanic pyre in the midst, vomiting flame with incessant explosions.

At length the eruption came to an end, and just as the last Roman candle was feebly spluttering—while the generous entertainer and gentleman whose aid she had invoked were ruefully regarding the smoking remains of £100 worth of paper and gunpowder—a messenger from the gathering of hapless orphans across the lawn appeared on the scene. His remark was all that was needed to cap the melancholy climax.

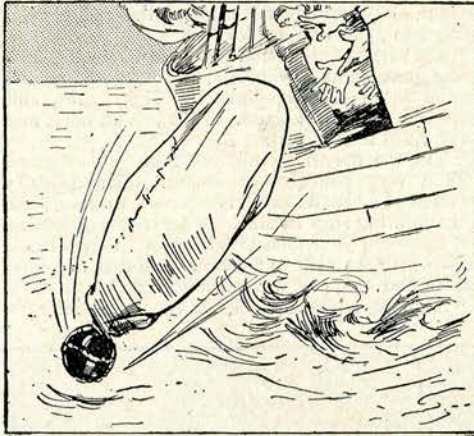
"That last firework was an awfully pretty one," said the little boy. "The children want to know if they can't have another one just like it!"

OLD LADY: "Little boy, what would your father do if he should find you smoking?"

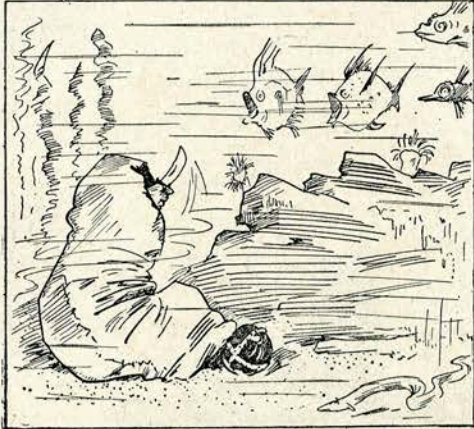
Little Boy: "He'd (puff) prob'ly whack me; this is (puff) one o' his cigars."

Brought Her a Fortune.

One of Jack's Little Yarns.



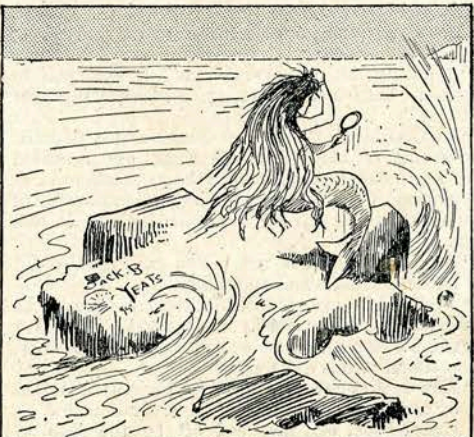
It appeared to be all up with Jack Bulkhead when they buried him in a sack.



But Jack wasn't quite dead, and so cut the sack, à la Monte Cristo.



And just as he got his head and shoulders out up came the chief dressmaker from Neptune's court, and she was so taken with the style of Jack's new undivided skirt—



That she introduced the style at once, and it has remained in fashion ever since.

Proved Equal to It.

THE presence of mind of a certain well-known actor was always very remarkable, but was never put to so severe a test as on the following occasion. While acting the part of a pirate chief, he was being conveyed in a vessel across the stage with his band of brigands on deck beside him.

One of the supers, whose duty it was to work the waves under large sheets of gauze, was so unfortunate as to put his head through the gauze, and to appear standing in the middle of the mimic sea before the full view of the audience.

The actor on the vessel, without losing his presence of mind, called out: "A man overboard!" and the astonished super was hauled upon deck by the pirates amidst the applause of the spectators, who imagined it was a part of the play.

It Made His Fortune.

IT is said that Elias Howe, of sewing-machine fame, almost beggared himself before he discovered where the eye of the sewing-machine needle should be placed. How he finally hit upon the right place has been related.

Howe's original idea was to follow the model of the ordinary needle, and have the eye at the heel. It never occurred to him that it should be placed near the point, and he might have failed altogether if he had not dreamed he was building a sewing-machine for a savage king in a strange country.

Just then, in his actual waking experience, he was perplexed about the needle's eye. He thought the king gave him twenty-four hours to complete the machine, and make it sew. If not finished in that time death was to be the punishment.

Howe worked and worked, and puzzled and puzzled, and finally gave it up. Then he thought he was taken out to be executed. He noticed that the warriors carried spears that were pierced near the head.

Instantly came the solution of the difficulty, and while the inventor was begging for time, he awoke.

It was four o'clock in the morning. He jumped out of bed, ran to his workshop, and by nine o'clock a needle with an eye at the point had been rudely modelled. After that it was easy.

That is the true story of an important incident in the invention of the sewing-machine.

Thus Does He Bite.

WHAT happens when the rattlesnake means mischief has recently been told by a well-known naturalist.

He throws himself into a spiral, about one-third of his length, carrying the head, rises from the coil, and stands upright. The attitude is fine and warlike, and artists who attempt to portray it always fail.

He does not pursue: he waits. Little animals he scorns, unless he is hungry, so that the mouse or the toad he leaves for days unnoticed in his cage. Larger or noisy creatures alarm him. Then his head and neck are thrown far back, his mouth is opened very wide, the fang held firmly erect, and with an abrupt swiftness, for which his ordinary motions prepare one but little, he strikes once and is back on guard again, vigilant and brave.

The blow is a stab, and is given by throwing the head forward, while the half-coils below it are straightened out to lengthen the neck and give power to the motions which drive the fangs into the opponent's flesh. As they enter, a muscle closes the lower jaw on the part struck, and thus forces the sharp fang deeper in. It is a thrust aided by a bite.

At this moment the poison duct is opened by the relaxation of the muscle which surrounds it, and the same muscle which shuts the jaw squeezes the gland, and drives its venom through the duct and hollow fang into the bitten part.

MASTER: "Describe the route you would have to follow to get to the Martinique Islands."

Pupil: "I first proceed to Marseilles—"

"Well, and then?"

"Then I go on board a steamer and leave the rest to the captain, who knows the way much better than I do."

FATHER: "Thackeray speaks of 'the avuncular mansion': what does 'avuncular' mean?"

Son: "Let me see—what is the root of the word? *avis*—a bird—bird feathers. 'Avuncular mansion' means a well-feathered or wealthy mansion."

Father (with a sigh): "How thankful you should be that I have been able to give you a classical education."